

**Solent Papers No. 5**

# **Fort Gilkicker**



**David Moore**





**Rear of Fort Gilkicker from the North in 2010**



**Above Left:** The fort from the West

**Above Right:** The Gorge with Artillery Store



**Left:** Gun casemates converted to filled shell store, with shell lift in 2011

**Below:** Rear of gun casemates (barrack rooms) with magazines beneath in 2011





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## Fort Gilkicker

Written and Illustrated by David Moore



Rear of Fort Gilkicker in 2011

### Acknowledgements

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- No. 4 Hilsea Lines and Portsbridge
- No. 5 Fort Gilkicker
- No. 6 Fort Brockhurst and the Gomer - Elson Forts
- No. 7 Fort Fareham
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- No. 9 Fort Nelson a History and Description
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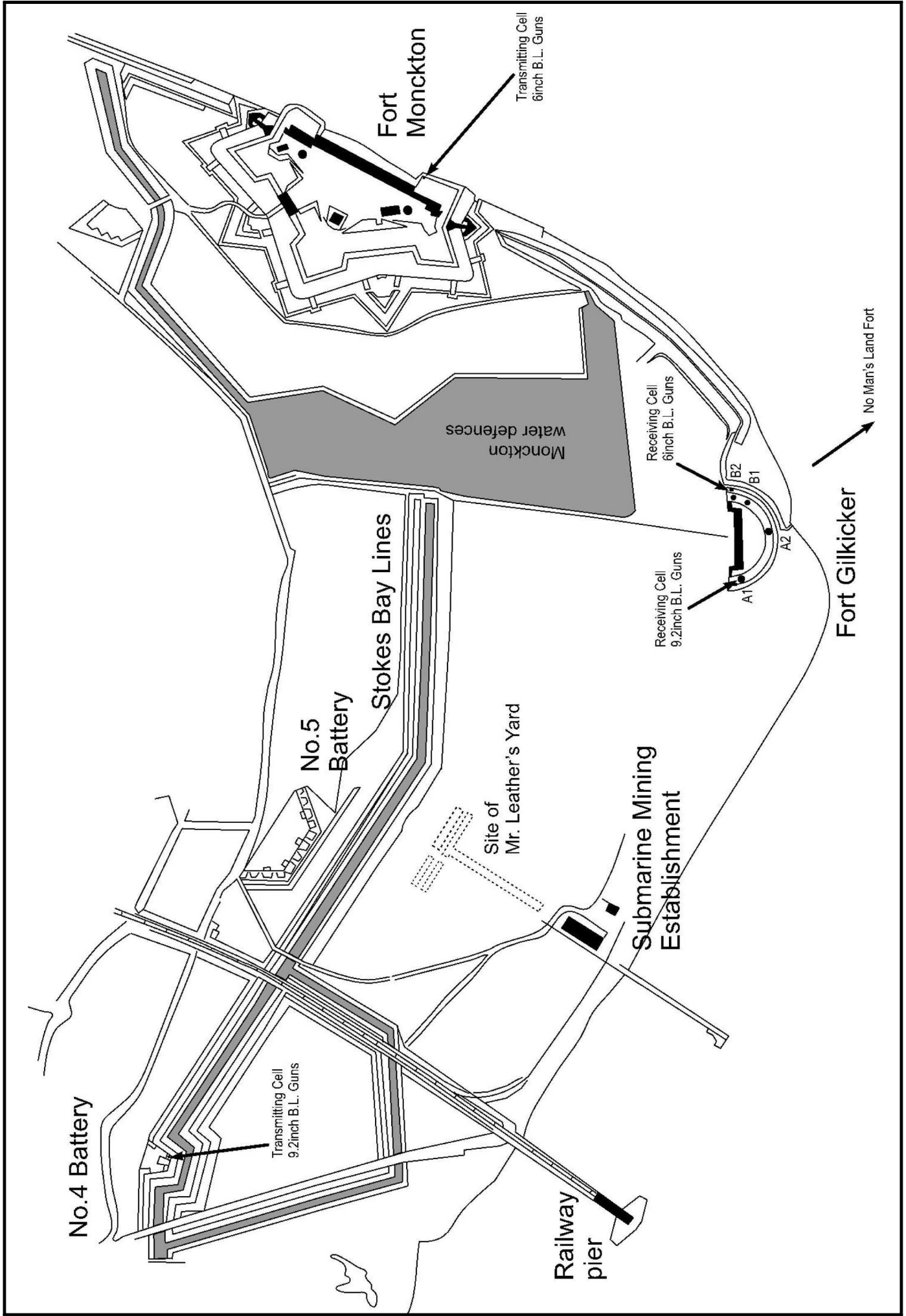
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**Location**

(Grid reference SZ606975) Fort Gilkicker stands on the beach at the west end of Stokes Bay at Gosport in Hampshire. It is clearly visible from the Bay as the position it occupies dominates the safe water anchorage of Spithead in the Solent. It can be visited by travelling along Fort Road at the eastern end of Stokes Bay, Gosport and turning seawards down an approach road through the golf course to the rear of the fort. The fort is not open to visitors at present but it is possible to walk around the outside and climb the earth banks surrounding it to view the interior

**The origins of Gilkicker**

As early as the fifteenth century Portsmouth Harbour was an important safe refuge for ships of the Navy patrolling the Channel. It contained a dockyard and arsenal. Spithead provided one of the chief anchorages of the Empire. It was recognised that Portsmouth and its harbour had to be defended from possible attack by land and by sea. The fortifications on the Portsmouth side were of a much more extensive nature than those on the western side at Gosport as the Naval base was situated on the eastern side. As the fortifications grew over the years it was recognised that both sides of the harbour had to be protected. By the sixteenth century both sides of the harbour mouth had fortifications to prevent an enemy running into the harbour and attacking the dockyard itself. On the Portsmouth side was built Southsea Castle and on the Gosport side Haselworth Castle was constructed on Gilkicker Point. These two forts were part of the scheme of fortifications proposed by King Henry VIII in his effort to protect his Southern shores. Haselworth Castle is first mentioned in 1545 and by 1588 rumour has it that the castle was a crumbling ruin. In 1669 two sea marks were built by Robert, Earl of Warwick who was Parliamentary Admiral to Charles the First. One stood at the side of Haselworth Castle and was known as the Gill-Kicker whilst the other stood further inland at the end of Clayhall Road near Alverstoke Church and was known as the Kicker-Gill. Both were triangular in plan and were built of stone but were heightened in the 18th. century with additions in brick. They were to be used in conjunction with each other to find the safe water passage into Portsmouth Harbour and are not to be confused with the present measured-mile markers which can be seen at Browndown and Gilkicker. The Kicker-Gill was pulled down in 1965. The origin of the names are unknown but the point at

‘Hasilworth’ seems to change to ‘Gill Kicker’ or ‘Gilkicker’ point after the erection of these sea marks. Daniel Defoe wrote in 1724 of *‘the point of land on the side of Gosport which they call Gilkicker where also they have two batteries’*. It is safe to assume that Gilkicker gained its name from the sea mark and not the other way round.

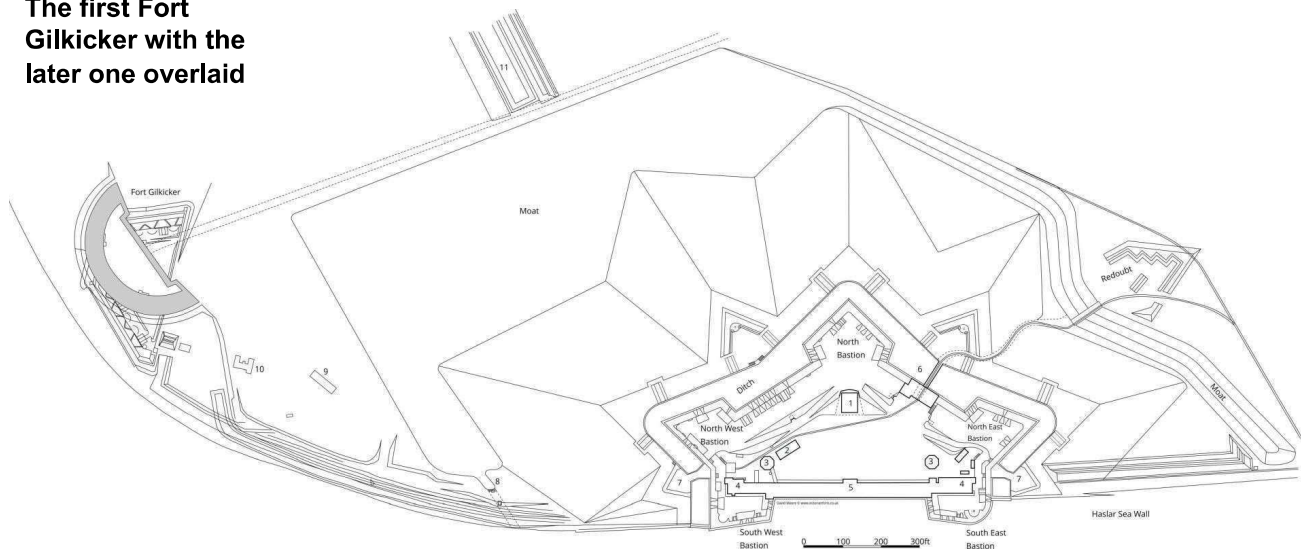
**The early defences of Stokes Bay**

There were many early proposals to build some form of defence works at ‘STOAKS’ Bay. A report by Talbot Edwards in 1707-08 recommends that *‘...seaven platforms and redoubts be built there from Gilkicker westwards with lines of communication between to cover from the ships in relieving the forts.’* The pre 1815 defences of Portsmouth allowed ships to approach close to Portsmouth Harbour and Stokes Bay had always been a possible landing place for an enemy force. In July 1779, Col. Monckton had advised that a defensive line should be constructed along the bay and several earthen batteries (six) had been constructed along the bay from Browndown Point to Gilkicker Point between 1782 and 1783. They overlooked Stokes Bay marshes and provided gun platforms and although they were referred to as the Stokes Bay ‘Redoubts’ they were not capable of defending themselves and five of them received armament in 1795. Three temporary redoubts were also built but abandoned by 1783. Various proposals for a new fort at Stokes Bay were considered but rejected including one in 1782 for a large pentagonal fort to be constructed in the vicinity of the present Bay House. By 1820 five of the redoubts survived. An engineer, Major John Archer, reported in 1773 on the strength of the Gosport Defences as part of the overall defence of Portsmouth Harbour. He recommended the demolition of the Gill Kicker tower when an attack was imminent and its replacement with a wooden one so placed to lure the enemy ships using it as a guide onto the Warner and Norman Sands.

In 1779, as a consequence of the American War of Independence and a threat of invasion from France and Spain, the western side of Portsmouth harbour was examined and found to be virtually without defence. In this year an invasion attempt by France and Spain was defeated by lack of planning and sickness and the force retreated without coming anywhere near to their objective of a landing at Stokes Bay. On 13th August 1779, Lt. General Monckton, the Governor of Portsmouth, ordered his



### The first Fort Gilkicker with the later one overlaid



### Fort Monckton and Fort Gilkicker 1892

- |                      |                      |                    |
|----------------------|----------------------|--------------------|
| 1 Magazine (Canteen) | 5 Soldiers' Quarters | 9 Married Quarter  |
| 2 Recreation Room    | 6 Drawbridge         | 10 Stables         |
| 3 Cookhouse          | 7 Caponier           | 11 Stokes Bay Moat |
| 4 Officers' Quarters | 8 Sluice             |                    |

Commanding Engineer, the then Colonel Archer, to erect a battery at 'Hasilworth' Point on the site of Haselworth Castle. Up until 1780 this fort was referred to as the Fort at Gilkicker but then it changed its name to Fort Monckton. Part of its outer defence was Gilkicker Lake. This was filled by the River Alver which flowed through tidal marshes parallel with Stokes Bay beach. The river flowed into the sea through a sluice from Gilkicker Lake. The Gilkicker landmark was removed at the time of the construction of the fort at Gilkicker and surprisingly the magazine of this fort was so visible that it could be used in conjunction with the Kickergill as the Gilkicker had been. This early Fort Monckton was to cause a great deal of argument as to its suitability and it was replaced with a much stronger fort by 1790.

### The first Fort Gilkicker

In the 1850's it was considered necessary to secure the western landward approaches to Portsmouth Harbour by building a line of fortifications. Between 1853 and 1858 two new fortifications based on the latest continental form of 'Polygonal' fortification were constructed at Gomer and to the north at Elson. From 1858 to 1862 three more elaborate forts (Brockhurst, Rowner and Grange) were built to fill in the gap between these two earlier forts. These five forts became known as the Gosport Advanced Lines.

It was important to close off the southern line of approach from Stokes Bay as an enemy landing in the Bay would make the new Gosport Advanced Line ineffective. In order to make a beach landing more hazardous Fort Monckton was strengthened by the addition of an 'Auxiliary Battery', the first fort on the site of the present Fort Gilkicker. An earthen rampart connected the two (a distance of 500 yards).

The earlier fort faced in a more westerly direction than the present one and had a wet moat in front of it. It was designed to protect the beach at Stokes Bay as well as the deep water anchorage which lay between Browndown Point and Gilkicker Point.

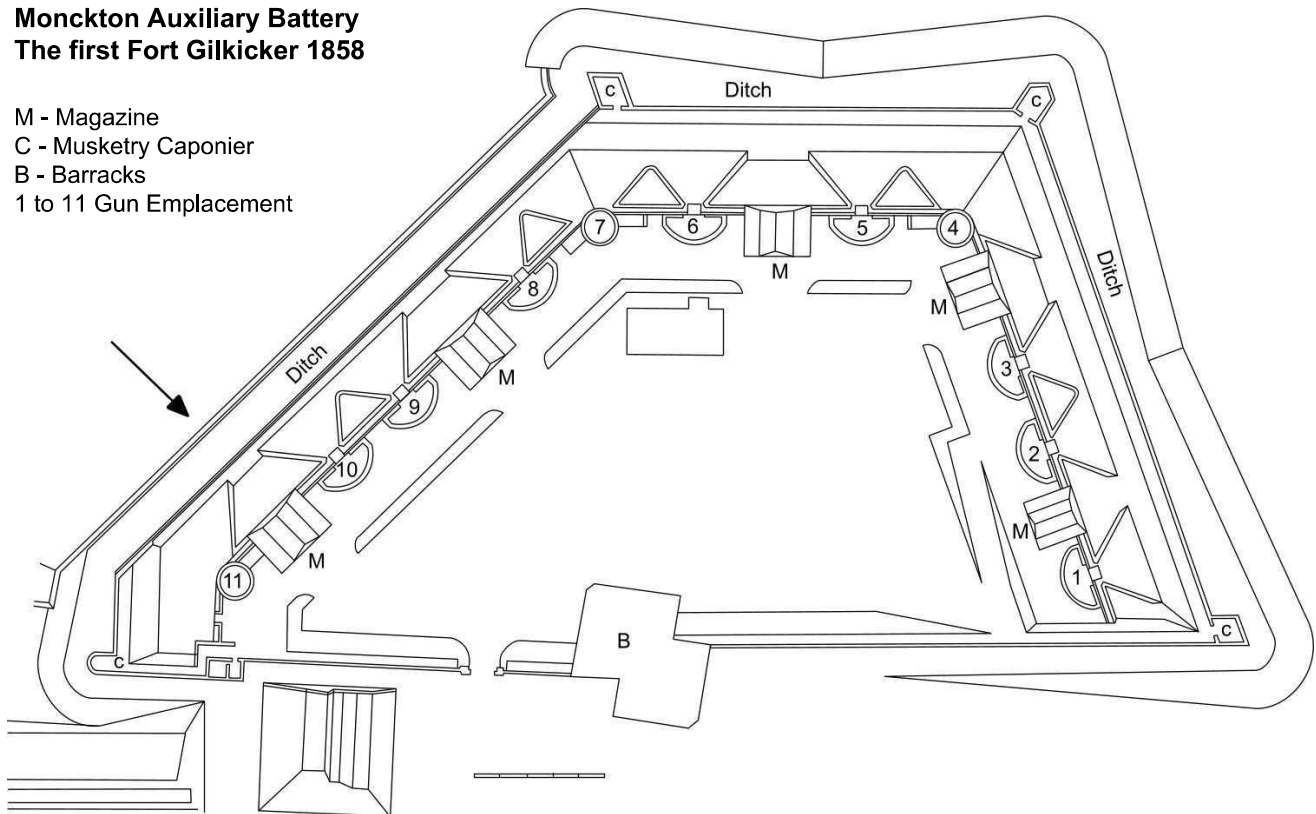
A highly critical observer of the time, one James Fergusson, who was later to become the Treasury member on the 1860 Commission, wrote in 'Portsmouth Protected' - 1856, that two new 6 gun batteries had been constructed at Gilkicker and at Southsea since 1852. He described them as being :-

*'...wholly of earth, without any protection in front or in rear, and with parapets so enormously high, and, consequently, with embrasures so deep, that it is almost impossible to get them to stand; that on Gilkicker point has already tumbled down once of its own accord, in the most unprovoked manner, and it*



### Monckton Auxiliary Battery The first Fort Gilkicker 1858

M - Magazine  
C - Musketry Caponier  
B - Barracks  
1 to 11 Gun Emplacement



*is very doubtful whether their own fire would not cause their embrasures to bulge, and probably to fall in and smother the guns; certainly one shot from the enemy would effect this.'*

He adds that neither had any defence against assault in front. He also criticised Gilkicker and the two Browdown Batteries for being built on the shingles close to the waters edge just where the sea is deepest close in to the shore. In his view they should have been 300 to 400 yards further back giving them more resistance to a landing or assault. He presented plans for the defence of Stokes Bay which consisted of a system of ramparts and a ditch running the length of the Bay.

A map of 1858 states that the fort at Gilkicker had positions for twelve not six guns. It was usual to provide only half the number of guns as there were embrasures to allow for some of the embrasures being destroyed by enemy action. An armament list of 1860 states that 'Monckton Auxiliary Battery' had as armament the following guns :-

9 x 68 pdr. 95 cwt

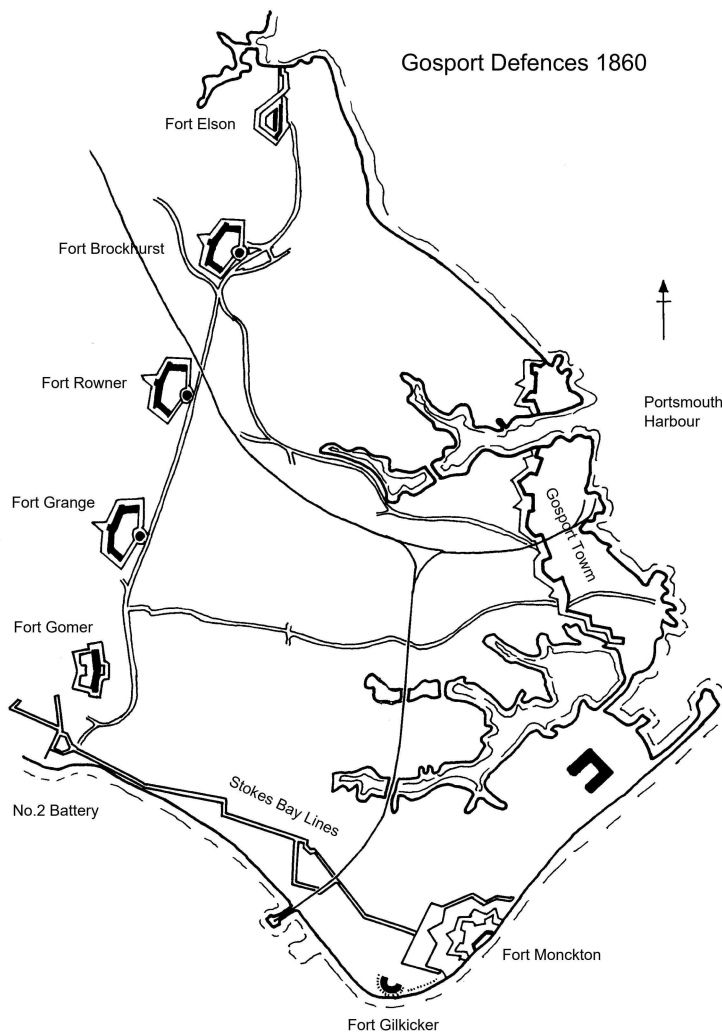
2 x 10 inch. 85 cwt

Fergusson also criticised the new fort at Gomer and the existing batteries at Browdown. His scathing comments were obviously taken seriously for Fort

Gomer was altered and the Browdown Batteries were replaced in 1888 by a more powerful sea facing battery for two heavy 12.5 inch Rifled Muzzle Loading guns.

### The Commission of 1860

By the 1850's England was seriously concerned by the possible intentions of France to invade England once more. The introduction of steam propulsion was a threat to the supremacy of the Royal Navy, which up till now had been able to blockade the French channel ports. In 1858, the French had constructed the fore-runner of a new class of fighting ship, La Gloire. These 'Ironclads' posed a particularly serious threat to the dockyard at Portsmouth which would have to be destroyed in preparation for a French invasion. England's answer on the sea was the construction of its own ironclads such as 'Warrior'. The rapid advances made in the construction of guns culminating in the invention of Armstrong's Rifled Breech Loading gun (R.B.L.) in 1859 showed that the land defences clearly had to be upgraded to take the new ships and guns into account. It was expected that the forces on the Continent would soon possess guns of equal performance. Under the direction of Lord Palmerston a Royal Commission was set up to 'Consider the Defences of the United Kingdom' with particular reference to the new rifled guns, under the



Chairmanship of Sir Henry David Jones, Major General, Kt, CB. Not surprisingly James Fergusson was the Treasury official on the Committee.

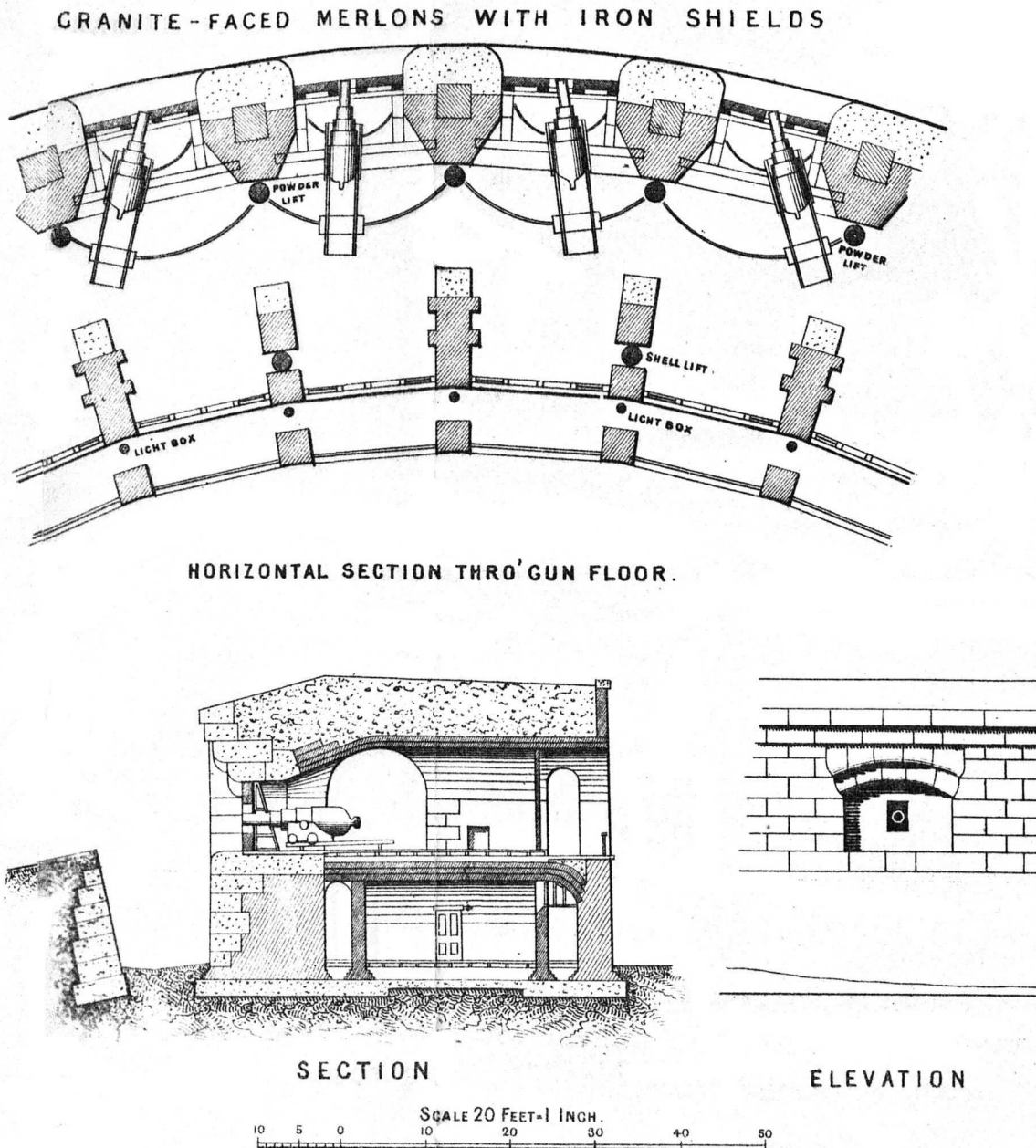
As part of the 1857 defence proposals by Major W.F.D. Jervois, the Assistant Inspector-General of Fortifications, a water filled ditch with a rampart was constructed by the Royal Engineers along the length of Stokes Bay. This was to link the Gomer Elson line of Forts with the Monckton and Gilkicker Forts, closing off the Bay and completing the western defences of the Harbour. Such a moat had been described by Fergusson in his *'The Peril of Portsmouth'* published in 1855 and had been considered by Monckton as early as 1779. The moat was flanked by five batteries at various points. They were numbered from one to five, west to east. The River Alver was diverted into the moat to keep it supplied with water. This was under construction when the Defence Committee met in 1860 and was approved by it.

The Committee recognised that the Stokes Bay beach was a perfect place for a landing along its whole length. Jervois said in his report that the water was deep enough for ships to lie within 800 yards of the shore. Archer had already noted in 1773 that the beach and bay provided a fine shelving beach for troops to land under covering fire from their ships. Here they could form up before an attack was made on the surrounding high ground. Spanish intelligence reports of 1597 and the French invasion plans of 1768 and 1769 had confirmed this. Little construction had been done in the intervening years.

### Proposals for Gilkicker

The Commission which reported in 1860 recommended that Gilkicker should be extended and strengthened and its armament increased to nine guns. A new battery was constructed instead. Now that the defence of Stokes Bay beach was complete with its new moat and rampart this new battery was no longer needed to protect the beach and could be constructed to face out to sea and concentrate its fire on enemy shipping. The enemy was expected to try to run into the harbour through the defended narrow entrance. This was unlikely to be achieved just by relying on the destructive action of broadsides from line-of-battle ships or heavy frigates against Fort Blockhouse and the other batteries at the harbour mouth. Instead the great fear was that gun-boats would be employed to project shells to the rear of the forts, distracting the gun crews and preventing them from operating the heavy defence guns, some of which were not in casemates. These gun boats together with floating batteries were a formidable weapon in aiding an attempt by heavier vessels to force the in-shore channel. It was debated that the only way to counteract a line of such vessels, 'en echelon', along a course parallel to Fort Monckton, Fort Gilkicker and Fort Blockhouse was to supplement the direct fire of the heavier forts with a line of scattered batteries such as those along the Stokes Bay moat. The Defence Committee in 1862 approved the design of a 'casemated battery of curvilinear form for 26 guns in one tier' at Gilkicker. It was to direct its principal fire on Sturbridge Shoal and the flanks upon Spithead and Stokes Bay.





Although Lieutenant Colonel Jervois was by then the Deputy Director of Works for Fortifications and as such was the presiding influence over the design of the fort at Gilkicker, the actual design was by Lieutenant-Colonel Fisher.

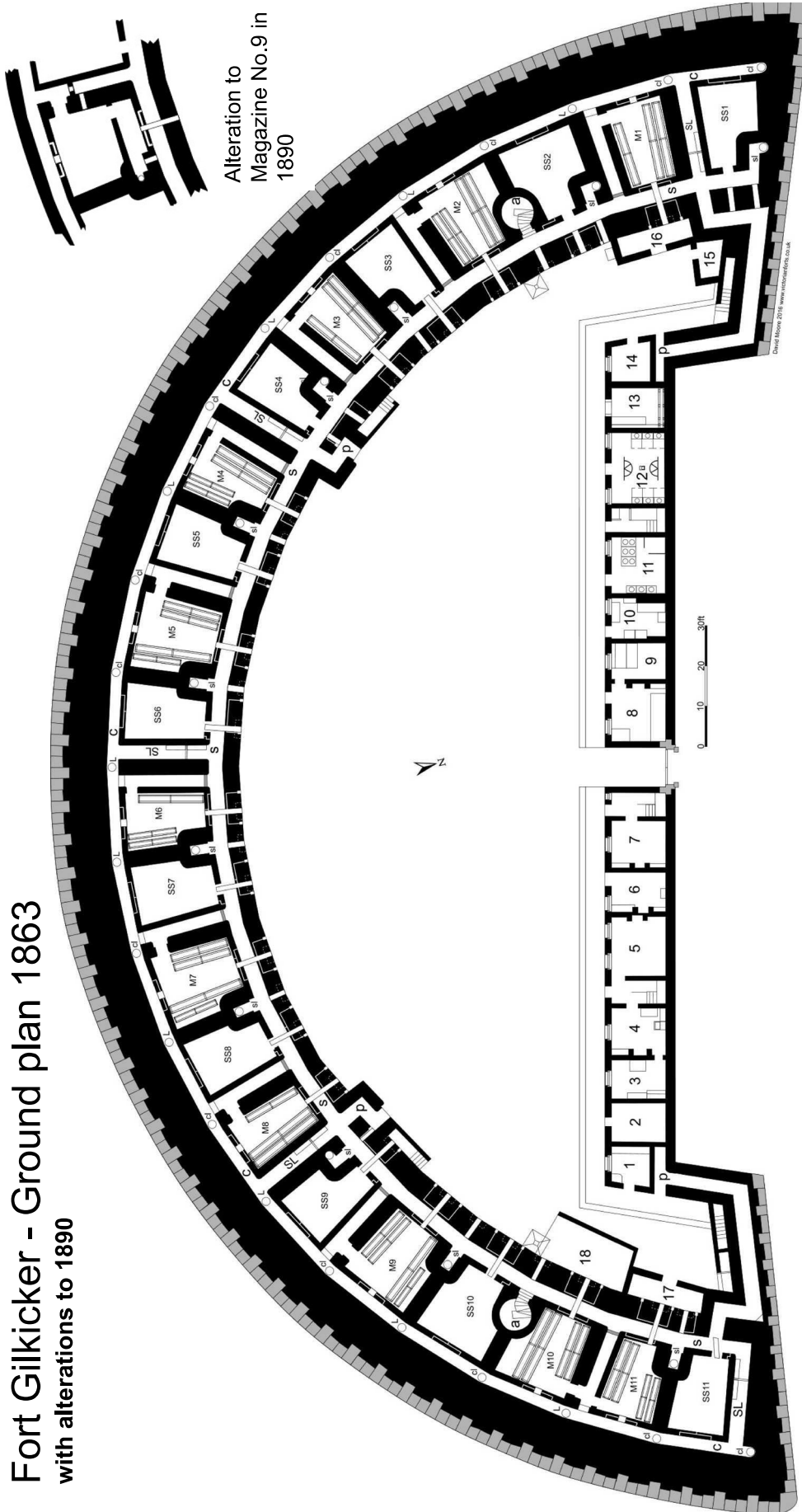
Work commenced in June 1863 under a contract for the basement. In November of the same year the contractor failed and the work was stopped. In June 1865 it was re-commenced under a fresh contract and it was nearing completion in 1869. By this time the plans had been revised (in 1867) to allow for iron shields in the casemates and for iron shields to protect five guns which were to be mounted on the roof. The fort was completed in 1871.

### The casemates

The new fort consisted of a high granite wall, semi-circular in shape, facing the sea. This wall was pierced on the seaward side by 22 arches (a reduction from the original plan) filled in with iron shields. Each shield had an embrasure for a gun which was mounted in a casemate behind. Each casemate was approximately 35 feet long and 18 feet in width. The roof of each casemate was covered with ten feet thickness of Portland cement and concrete.

The rear portion of each casemate was a barrack room which provided accommodation for the gun's crew and was fitted with the usual barrack room fittings. The flooring was of deal on oak blocks, as

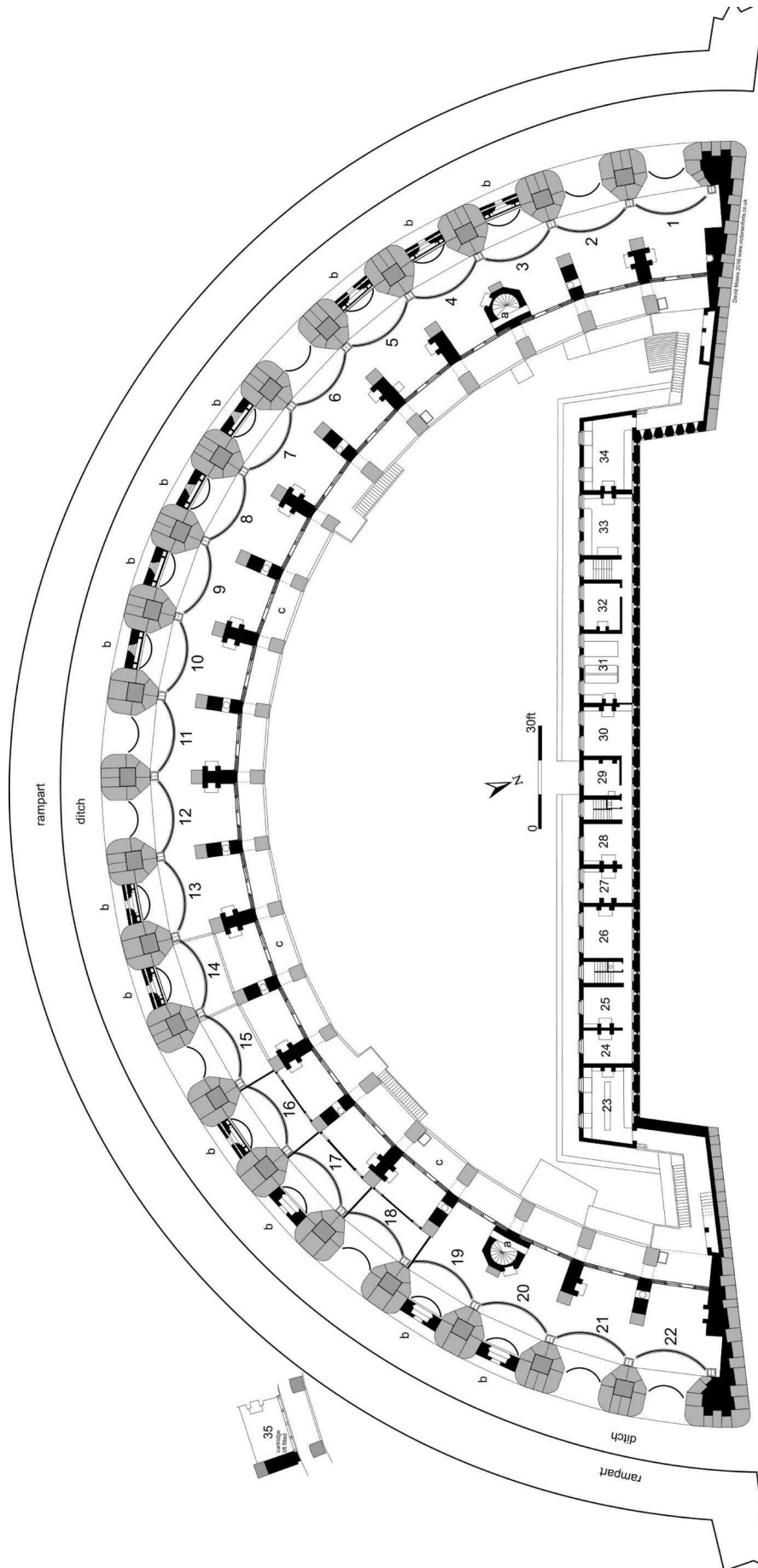
# Fort Gilkicker - Ground plan 1863 with alterations to 1890



- |           |                              |    |                              |    |                             |
|-----------|------------------------------|----|------------------------------|----|-----------------------------|
| S1 to S11 | Shell Stores                 | 7. | Officer's Quarters           | 17 | Coal Store                  |
| M1 to M11 | Cartridge Stores             | 8. | Guard House                  | 18 | Engine House                |
| 1         | No. 1 Cartridge Filling Room | 9. | Lock Up                      | a  | spiral stair to gun floor   |
| 2         | Tool House                   | 10 | Cook House                   | sl | shifting lobby with barrier |
| 3         | Pantry                       | 11 | Ablution Room                | p  | magazine entrance lobby     |
| 4         | Kitchen                      | 12 | Latrine                      | S  | Shell Passage               |
| 5.        | Mess Room                    | 13 | Shell Filling Room           | C  | Cartridge Passage           |
| 6.        | Officer's Servants           | 14 | No. 2 Cartridge Filling Room | L  | Lamp                        |
|           |                              | 15 | Bread and Meat Store         | d  | Cartridge Lift              |
|           |                              | 16 | Coal Store                   | sl | Shell Lift                  |



# Fort Gilkicker - Gun floor 1863 with alterations to 1890



1 to 22 Casemates with barrack room in rear of each

- 23 No. 2 Artillery Store
- 24 Officers' Quarters No.6
- 25 Officers' Quarters No.5
- 26 Officers' Quarters No.4
- 27 to 28 Field Officer's Quarters
- 29 No.3 Servant
- 30 Officer's Quarters No.3
- 31 No.3 Control Store (Bedding Store)

- 32 Officers' Quarters No.1
- 33 No.1 Regimental Store
- 34 No.1 Artillery Store

Inset : Modification to casemate No.14 in 1890

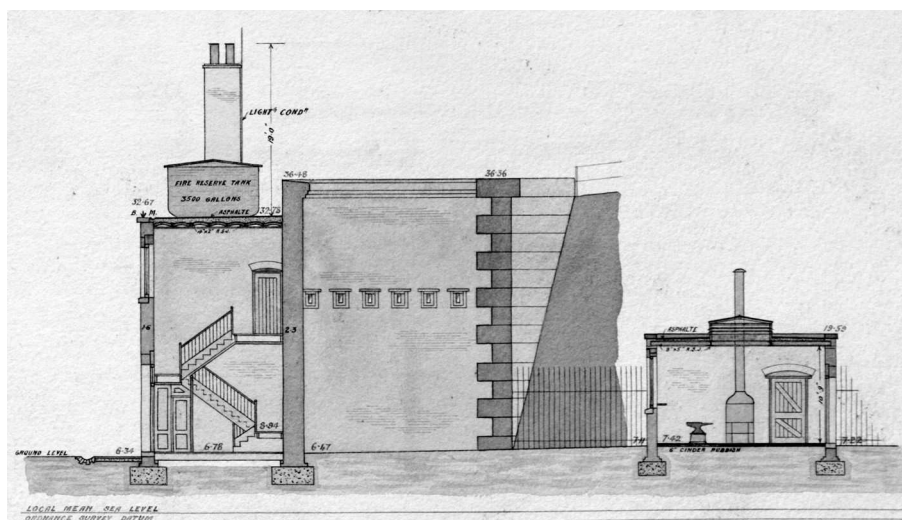
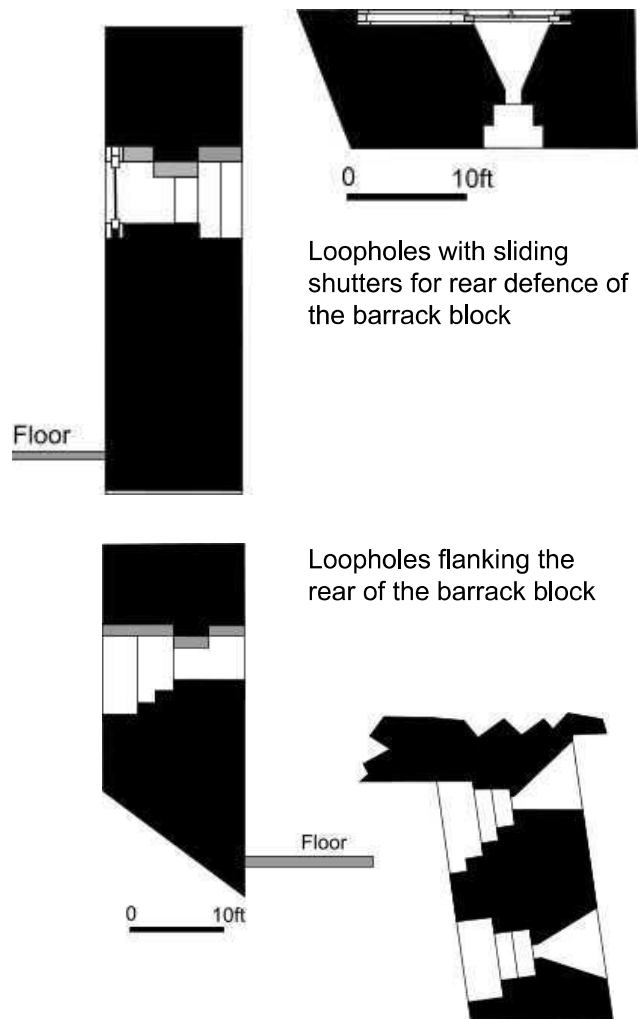
- a stair
- b shield frame
- c verandah

was that of the gun floor itself. Each barrack room had a fireplace which was supplied with its own fresh air inlet. The rear of the barrack room was closed off with a wood and glass partition with a door in the centre leading out on to a 'veranda' which ran the whole length of the rear of the casemates. The verandah was paved with York stone. An iron railing ran along the edge of the veranda. The pillars of the veranda also served as chimney stacks for the casemates. On the veranda outside casemates 1, 5, 18 and 22 was a sink and tap. The veranda was connected to the ends of the barrack block by a balcony. From the veranda two sets of steps led down to the parade and up to the gun positions on the roof. The whole of the fort was 400 feet across and 150 feet from front to the rear of the barrack block.

### The barrack block

A defensible barrack block closed off the rear of the fort and provided accommodation for the officers of the peace time establishment which consisted of 5 officers, 4 sergeants and 98 men. The barrack block was loopholed on the upper floor to the rear to provide local defence. Each loophole was provided with a sliding shutter to close it off when not in use. The building was of brick which was rendered completely in the early 1900s. The roof is flat, of Fox and Barret's construction, consisting of iron girders filled between with wood fillets and concrete. It was sealed with asphalt and had a York stone coping. Two reserve fire tanks each holding 3,500 gallons were positioned on the roof. In later years, possibly after the Second World War, these were removed and the roof was covered with sloping corrugated iron sheets because of leakage. Access to the fort was through a tunnel in the centre of the barrack block. According to the earliest plans Gilkicker was built to house 1 Field Officer and 4 Officers with 220 NCOs and privates.

The upper floor of the barrack block consisted of, from west to east, artillery store no. 1, regiment stores, bedding store, officer's quarter, officers servant's quarter, field officer's and officer's quarters and finally



Section across the barrack block and smith's shop





Interior of the barrack block with one of the shuttered loopholes.

artillery store no. 2. Each of the two artillery stores, being at the ends of the barrack, led out onto the balcony connecting with the veranda of the casemates. No access was possible from the barrack itself. On the landing at each end a ladder gave access to the roof which was provided with what appears to be a firing step to allow defence against landward attack. Loopholes in the connecting wall provided flanking fire across the rear of the barrack block. The ground floor, from west to east, included cartridge filling room no. 2, shell filling room no.2, latrines, ablution room, cookhouse, lockup, guard room, access tunnel, an officer's quarter, servant's quarter, officer's mess room and kitchen, pantry and at the extreme east end a tool room and cartridge filling room no.1.

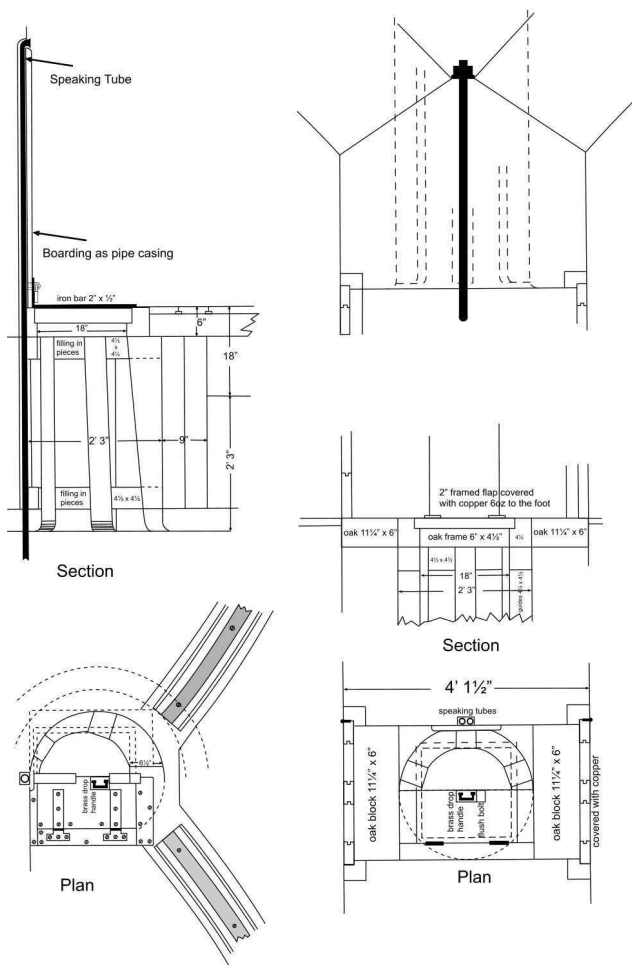
### **The magazines**

The 1853 'Recommendations of Circular On The Subject Of Coast Batteries' laid down that the ammunition for coast batteries be made up into cartridges and that these cartridges be kept in metal-lined cases. It stated that it was also desirable to have one barrel of loose powder per gun with a proportionate number of flannel charges. Magazine

accommodation was to be provided to store 200 rounds per gun. Bomb proof shell filling rooms were to be provided in the ratio of one to every six guns. These were to be contiguous to the magazines. Where this was not possible expense magazines to hold three cases per gun had to be provided. One cartridge store and one shell store for every two guns were recommended by the 'Memorandum On The Modifications Rendered Necessary In Batteries By Recent Improvements In Artillery'. (Appendix no.3 to the 1869 report.) The number of rounds per gun stored in basement stores was set at 100. At Gilkicker these recommendations were taken into consideration. Under the casemates, in a basement forming a lower storey, were constructed the ammunition stores.

This basement was divided into a number of separate chambers corresponding to the casemates above and allotted alternately for the storage of shell and cartridge. There were 11 shell stores and 11 magazines. The magazines held between 203 and 317 barrels of black powder with 100 pounds per barrel. Passages ran the whole length of the battery, in front of and to the rear of these chambers, separated from them by walls. At either end of the shell passage, where it met the gorge wall, a tunnel ran under the balcony adjacent to the rear wall of the fort. It emerged in a lobby under the end of the barrack. Access from the parade to the magazines was in two places through porches under the stairs which led from the parade to the gun floors. Two spiral stairs led from the gun floors to the magazines emerging in the shell passage below casemates numbers 3 and 20. The front (seaward), or powder passage, was three feet wide whilst the rear, or shell passage, was three feet six inches wide. At each end of the basement and opposite each entrance porch from the parade, cross passages connected the shell passage with the powder passage. The shell stores and the powder magazines were filled in the first instance from the shell passage, into which the shell stores opened by a doorway direct. Doors from the shell passage opened into lobbies, or short passages, separated from the cartridge stores themselves by a thin brick partition.

At the far end of each lobby a door gave access to the magazine. The end of the lobby had a powder hatch with sliding shutter, through which the cartridges were passed from the lobby into the powder passage. From the powder passage vertical powder lifts



Powder Lift

ascended to the casemates above. Recesses in the shell passage contained vertical shell lifts, two feet in diameter, cut into the piers and emerging from them on the gun floor towards the rear of the casemates. Four of these shell lifts continued up to the upper battery on the roof. (The 'Memorandum' stated that one shell lift for each gun and about two cartridge lifts for three guns were to be provided, the place of the third lift being occupied by the lamp for lighting the powder passage.) There were seventeen cartridge lifts and eleven shell lifts but by 1890 some of the cartridge lifts had been converted to lamp housings leaving twelve cartridge lifts.

The lifts for both the cartridges and the shells were thirteen feet in height, measured from floor to floor. Speaking tubes at each lift enabled the gun detachments to communicate with the men in the passages beneath. The lighting in the powder passage was provided by lamps passed down through apertures in York stone slabs set in the floor above. The shell passage, shell stores and cartridge stores were illuminated by lamps passed through tunnels from the outside of the casemates at parade level.

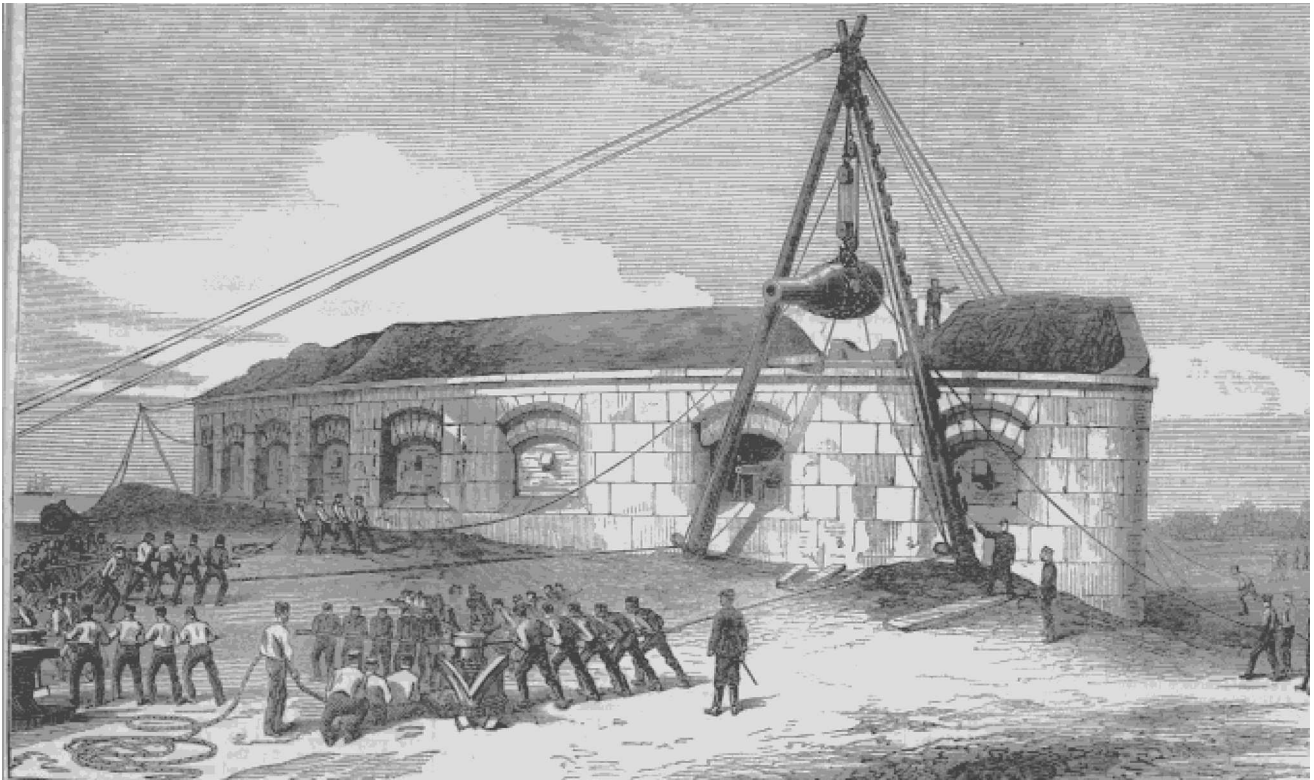
Iron doors, which were clad with wood on the inside, closed them off when the lamps had been inserted. The earlier light boxes in the floor of the veranda which illuminated the shell passage were covered over but the York stone slabs remained.

The 1869 Committee noted that at that time alterations were in progress '*...to admit of the lamps being inserted into the light closets along tunnels perforated through the exterior walls of the casemates, and crossing the shell passage..*'

The Committee was of the opinion that such expense was unnecessary. They stated that '*..this precaution is in excess of what is necessary to guard against accident, as we (the committee) see no objection to the lamps when lighted and with their doors closed being carried along the shell passage, deposited directly in lamp closets, made for their reception, and there shut up before the shell stores or magazines are opened for the service of the guns.*'

This would, in the opinion of the committee, not be objectionable as powder would not be carried along





**‘Raising a 25-ton gun at the Gilkicker Battery, Portsmouth’ Illustrated London News 29 July 1871**

this passage except when the magazine was being filled and the battery not in action. They stated that it could be no more dangerous than running a truck, with iron wheels, along it laden with a heavy shell. They remarked that the arrangements for lighting were perfectly secure, and where candle lamps were used with candles having three wicks, the light was ample. The employment of candles was preferred as a safeguard as they needed no trimming. Despite the objections the work was carried out.

#### **Arming the fort**

An armament return by Jervois, dated 16th. March, 1869, showed the intended armament of Gilkicker to be five 12-inch guns of 25 tons, seventeen 10-inch guns of 18 tons and five 9-inch guns of 12 tons.

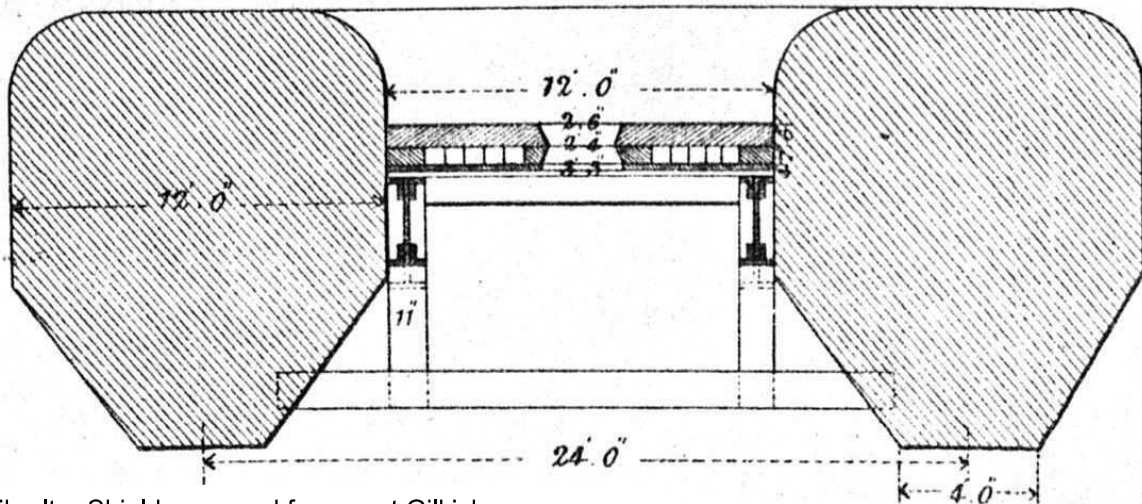
In July 1870 the Royal Artillery and Royal Engineers Committee recommended that the gun positions on the roof at Gilkicker should be completed with ordinary embrasures with the intention that iron shields be provided ultimately.

In The Illustrated London News of 29th. July, 1871 an article stated that Gilkicker had received ‘a portion of its armament’. The article added that the intended armament was to be 9-inch guns of twelve

tons weight and those which had been mounted were mostly fitted with Mr. Cunningham’s traversing gear. An illustration shows guns being mounted on the roof and the article gives details of the equipment and men needed to raise two 25 ton guns onto the roof. The number of artillery men employed was 140 and Captain William Smith, Gunnery Instructor of the 12th Brigade of Royal Artillery was in charge of the whole operation. It took one and a half hours to raise one gun, using huge sheers 70 feet in length and 2 feet in diameter, aided by two capstans with forty men to each.

The proposed armament of Gilkicker seems to have been changed many times and the actual armament is rather confused. On 19th December 1870 the Committee approved 10inch Rifled Muzzle Loaders on casemate platforms as the main armament for the casemates at Gilkicker. An illustration in The Illustrated London News of 25th October 1879 shows at least four guns in place on the roof at Gilkicker. A table of armaments, dated 1880 shows only four 9-inch 12 ton guns mounted.

In 1872 the Director of Artillery had requested that designs of traversing platform for 12-inch 25 ton R.M.L.s be installed at Gilkicker. By 1885 two of



The Gibraltar Shield proposed for use at Gilkicker

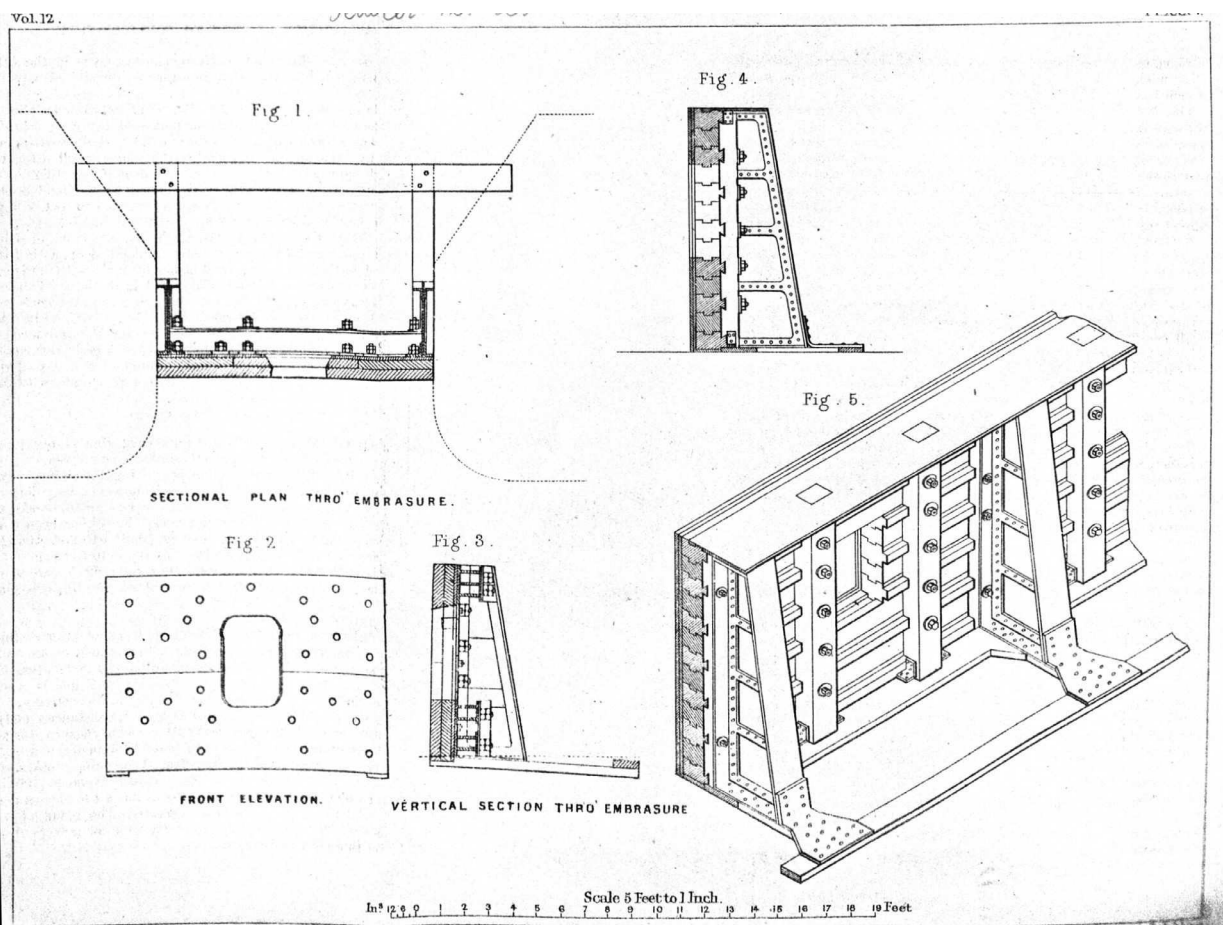
they were installed. On 21st July 1884 the Committee considered certain proposed alterations in armament and structure at Gilkicker.

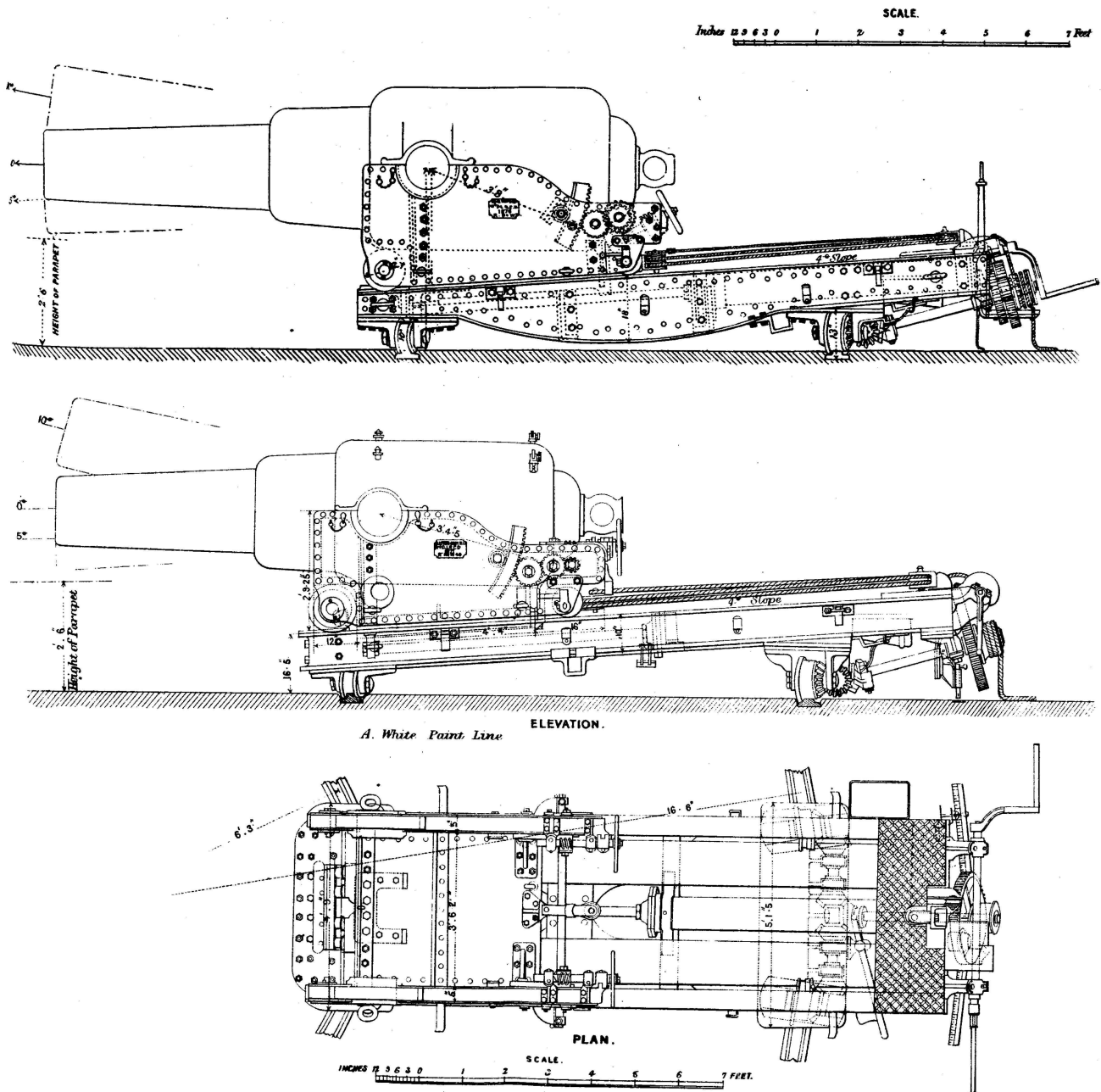
The approved armament was :-

- 2 x 12 inch R.M.L. 25 tons Upper tier/barbette
- 3 x 11 inch R.M.L. 25 tons Upper tier/barbette
- 17 x 10 inch R.M.L. 18 tons Lower tier
- 5 x 9 inch R.M.L. 12 tons Lower tier

### Shielding the guns.

The thick granite wall of the fort was considered to be impenetrable when Gilkicker was first constructed. The weak point lay in the area of the gun ports. If a gun can fire out of a casemate then enemy shells can come in. The gun ports were a likely target for enemy guns and shields were developed to protect them. Experiments began at Shoeburyness in the early 1860s to determine the





**Carriage, Garrison. R.M.L. 9-inch. Casemate or Dwarf**  
**Slide L.R.M.L. 9 inch Casemate fitted with side traversing gear**

The 9-inch 12 ton R.M.L. was 156 inches long, had a bore of 125 inches and a diameter of 39 inches. It was rifled with six grooves. It fired a 256 pound Palliser shell at 1,440 ft/sec, using a 50 pound charge. Five marks of 9-inch 12 ton gun were introduced from 1865 to 1872.

best method of constructing metal shields to protect gun casemates. Gilkicker was constructed with openings left in the granite walls for the proposed iron shields, when funds were available for constructing them. They were to be of the earliest experimental pattern known as the Gibraltar Shield. This required baulks of timber embedded into the floor and piers of the casemate at the rear of each

shield. These are still present in the casemates at Gilkicker. More experiments resulted in better shields and by the time Gilkicker was complete it had been decided that granite was not strong enough for protecting coast defence batteries and where possible works wholly plated with iron were preferred. In 1882 the design of shields for Gilkicker had been decided and they were then in the process

[illegible]

frames) in place, although this is contradicted by a report from the Defence Committee in July 1884 which states that the casemates received only ten of the proposed shields and a further eight had shield frames. It was proposed to take advantage of this situation to strengthen the superstructure by adding traverses (concrete infill) in some of the casemates. This would afford greater protection should projectiles burst inside the work. All the shields at Gilkicker, with the exception of one at each end, were completely removed in the 1960s to be sold as scrap.



The 1890 plan has proposed alterations pencilled in and these indicate that casemates 2, 6, 10, 14, 18 and 21 were to be filled in with concrete as traverses. Casemates 1, 17, 19, 20 and 22 are labelled as 9 inch guns whilst casemates 3, 4, 5, 7, 8, 9, 11, 12, 13 and 16 are labelled as 10 inch guns. Casemate 16 is labelled as 'no gun'. The 10-inch guns were fitted with mantlets. At the same time the ditch in front of the work was to be filled in to strengthen the security of the magazines.

The Committee recommended that this work be carried out with the omission of shields from casemates 15 and 17 (although the plan shows 17 as having a shield) which it considered were unlikely to be attacked by armoured ships. This was considered in the light of an imminent proposal to mount two additional heavy guns for the defence of Stokes Bay. (Browdown Battery was re-modelled to receive two 12.5 inch R.M.L.s in 1888 and completed in 1889). The Secretary of State for War approved the proposals on 29th. March 1886.

### **The early Armament**

An armament list of 1886 states that two 12-inch 25 ton guns were installed on the upper tier of the fort (the roof), together with three 11-inch R.M.L.s. The lower tier had ten 10-inch and five 9-inch R.M.L.s. The list also shows seven 13-inch Sea Service mortars on charge at Gilkicker. A design had been laid before the 1869 commission for an auxiliary battery of 16 Sea Service mortars on the left flank of the fort between Gilkicker and Fort Monckton. The Commission considered it to be '*...well calculated for its object*'. Something of the sort may well have been constructed but no trace of it remains. In 1886 it was decided that six of these mortars, not yet mounted, should be moved to a site close to No.5 Battery. The design had not then been finally approved. The battery was never constructed.

### **The trials at Gilkicker**

On 29th. December 1868, before the completion of Gilkicker, tests were carried out to see if the supply of ammunition was adequate to keep pace with the firing of the guns. Two 9-inch 12-ton muzzle loading rifled guns were mounted in the two extreme right casemates, to fire through wooden shields. These shields represented, in size and the space they occupied, the iron shields for which the battery was constructed and had not yet been fitted.

In front of and above the right gun iron racers were fixed from the roof of the casemate. On the racers a small four-wheeled truck was fitted with pulleys, for lifting the shot from the floor to the level of the muzzle of the gun. The ammunition for these experiments, both powder and shot, were stowed in the appropriate magazines in the basement below. The supply of cartridges from the store to the gun was effected in the following manner:-

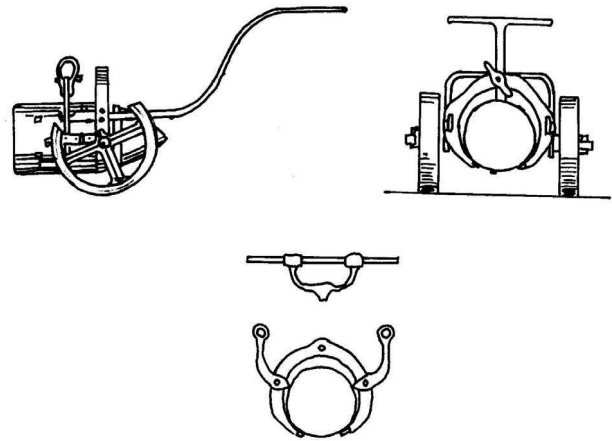
One man was stationed in the cartridge store, which he had entered from the shell passage, taking care to close the door behind him, and thus cut off all communications with that passage; one man was stationed in the powder passage, at the bottom, and two in the gun casemate at the top, of the powder lift. The man in the store having taken a cartridge, weighing 43 pounds, from the metal case in which it was kept, and placed it in the leather case, ordinarily used for conveying it to the gun, carries it into the lobby, and closing the door of the cartridge store behind him, then takes it to the powder hatch through which he passes it to the man in the powder passage, who hands him an empty leather case, with which, after closing the hatch, he returns to the cartridge store to repeat the operation. The man in the powder passage having received the cartridge in its case, carries it to the powder lift and attaches it to a snap hook at the end of the rope, which, passing over a pulley above the lift, is held at its other end by two men in the casemate, who immediately open the trap door, used to close the lift, and haul it up. When the full cartridge case arrives on the level of the floor it is taken off the hook and replaced by an empty case, which is lowered into the powder passage, the trap is then closed, and the full case with the cartridge in it is placed under cover of the pier until required at the muzzle of the gun.

The shells were stowed, standing on end, on the floor of the store and for their supply men were employed as follows: one man in the shell store who, with a small truck, like that used by railway porters, lifts a shell, and wheels it along the shell passage to the foot of the shell lift, where with the assistance of another man, he places it in a cage attached to the lower block of the hoist, so contrived that so long as there is a strain on the block the shell cannot fall out. The tackle for hoisting consists of a double and treble block, with a 3-inch rope, and is worked by four men on the gun floor. These men having hauled the shell up to the level of the gun floor, deposit it in the shell bearer, which is ready at hand to receive it.

They then lower the empty cage preparatory to another shell being placed in it. The shell bearer had side handles, and was arranged to be carried by four men. It was provided with hooks which, when it had been carried to the gun, were hooked on to the studs let into the face of the gun to receive them, and which supported the weight of the shell. When in position the shell was ready to be driven into the bore of the gun, the studs on it being brought in line with the grooves for rifling the gun, by means of corresponding grooves on the bearer.

The gun required 1 officer and 12 men for a detachment. The average velocity of shot was 1,320 ft. per second. It took 2.2 seconds to travel 1,000 yards. The time occupied by a vessel traversing 1 mile at a speed of 10 miles per hour would admit of a 9 inch gun being loaded and fired seven times and a 22 ton gun three times each mile. The 12 ton gun could be loaded, aimed and fired with accuracy in less than one minute, the 25 ton gun in less than 2.5 minutes. From the trials it appeared that manual power was inadequate for the purpose of supplying ammunition at sufficiently rapid rate from stores in the basement. The results of these tests led to the conclusion that the disposition of the shell stores and magazines in the basement were good, but the passage by which the shells were conveyed from the stores to the lifts were only three feet six inches wide. This scarcely allowed two men to pass each other with shell trucks, making it difficult, if not impossible, to supply the shells with sufficient rapidity from the basement alone.

After tests at Shoeburyness on 11th. and 15th. February, 1869, it was decided that it was possible to store Palliser shells safely in any position not subject to direct fire. The Committee decided therefore to recommend that a quantity of shells (not common shells) should be kept on the same level as the gun floors, in or near the gun casemates ready for immediate use, thus obviating the necessity of bringing up every round, as required, from the magazines. The trials at Gilkicker showed that two guns would fire six rounds during the time that would be required to bring four shells up from the shell store. (Each gun detachment had 1 N.C.O. and 13 men). Due to the restrictions imposed by the size of the shell passages it was not possible to increase the rate of supply of the shells and storing some near to the guns was the only solution.

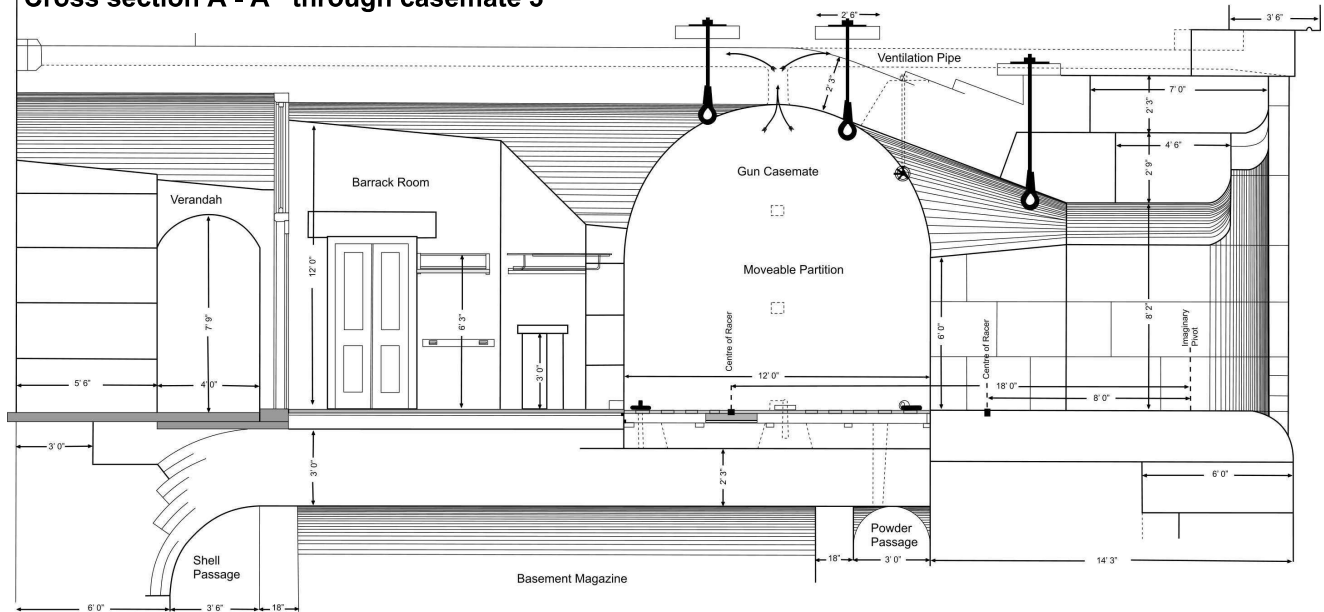


**Cunningham's shell carrier and sling**

#### **Mr. Cunningham Esq.**

Mr. Cunningham was a Major in the 3rd Hants Volunteers living in Bury House Gosport. He attended the 1868 trials at Gilkicker because in 1858 he had been informed that the Secretary of state for War had adopted his new system of traversing guns for all land service guns of 12 tons and upwards. Cunningham noted that before he fitted his traversing gear to the two trial guns at Gilkicker it was impossible to traverse the guns to the extreme. The train tackles, blocks and hooks prevented this. His new traversing gear consisted of a chain upon which a toothed gear mechanism acted to winch the gun around. This new method allowed the guns to be trained to the full extreme and required only two men as opposed to ten men for the old method. Cunningham was present at Gilkicker when three training tackles of the old block and rope variety were destroyed in one morning's exercise. His new gear with its galvanized chain was imperishable and he remarked that a gun fitted with it would be 'serviceable for one hundred years'! The guns could be fitted with this new gear without them having to be removed from their position to a factory. The guns at Gilkicker were fitted in position.

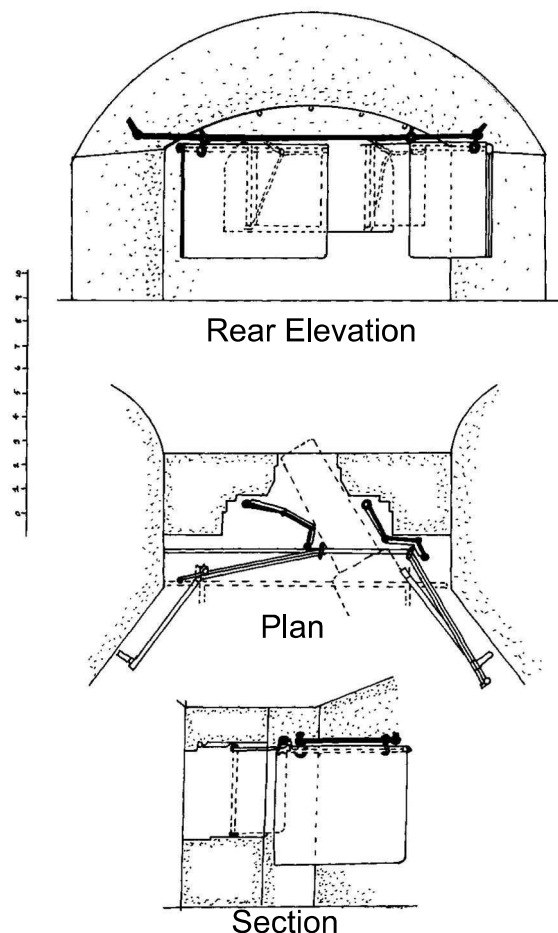
During the trials the Committee also tested the new 'Shell Carrier' proposed by a Mr. Cunningham. This consisted of a clip sling, which was readily fitted on the shell when in a horizontal position, and a small truck on a pair of wheels, having two hooks which hook into eyes on the sling. By bearing down on the handle of the truck the shell could be easily raised off the ground, and run along the floor by a single man. When it arrived near the muzzle of the gun, the sling was attached to the tackle on the traveller, the shell was then hoisted and transferred to the muzzle of the

**Cross section A - A through casemate 3**

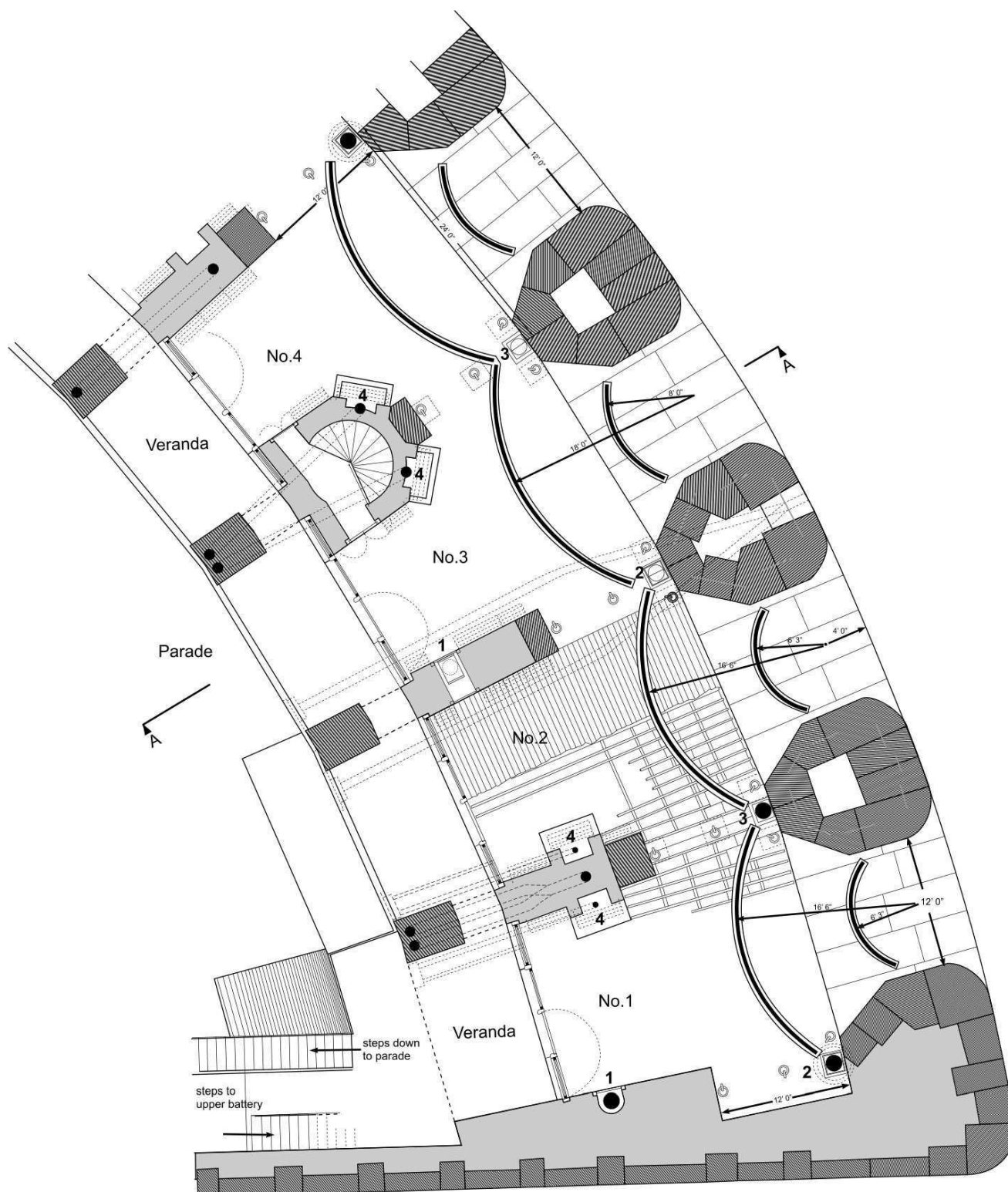
gun, into which it was entered a short distance to give it support, so that the sling could be detached and taken back for another shell. Each shell weighed 250 pounds and normally required four men to move it from the top of the lift to the gun on an ordinary shell bearer. The Committee recognised that the Cunningham bearer had a great advantage over the ordinary bearer because it would dispense with the services of a number of men who were employed at very heavy slow work, in the rear of the casemate, where they were most exposed. If more than two guns had to be served from the same lift, confusion and accident would probably arise in the heat of the action, causing inconvenience and retardation of the fire of the guns. The new trucks impressed the Committee but there was no provision for engaging the studs on the shells in the grooves in the bore of the gun as on the ordinary shell bearer. Mr. Cunningham also suggested that this truck be used on the magazine floor. The Committee were of the opinion that the ordinary shell bearer was totally unsuitable for use with shells exceeding 250 pounds in weight, and therefore when heavier guns were employed bearers on trucks should be employed.

### Mantlets

A casemate was a well defined target for the enemy to take aim on. A rifle ball or cannon shot entering the casemate through the gun-port would be more devastating as it ricocheted around inside than it would have been in an open gun position. Every gun mounted behind iron shields was to have a suitable mantlet made of rope-work for the three-fold object

**Mantlets for 10 inch guns**

of deadening the effect of vibration caused by shot blows on the exterior, of stopping splinters driven off the iron itself and bullets and fragments that may enter the port, and to keep out smoke. The mantlet



**Plan of gun floor - North West angle casemates 1 to 3**

- 1 Shell Lift from basement shell passage
- 2 Lamp recess for basement powder passage
- 3 Powder (cartridge) Lift from basement powder passage
- 4 Fireplace





**Gun Casemate No 8 and 7 for a 10-inch R.M.L. The shields and shield frames have been removed, as have the racers and graduated arcs. The rings for the mantlet bar can be seen.**

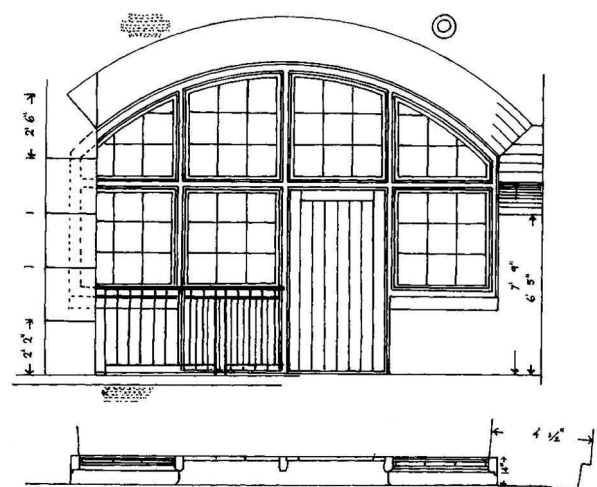
was suspended inside the casemate shield like a curtain. It was hung on a 'mantlet bar' by rings. Two mantlets were hung in each casemate and were pulled close about the gun's chase so that small arm fire or splinters struck from the outer face of the casemate by enemy shot would be caught in the weave of the mantlet and be prevented from entering. Due to their proximity to the gun barrel mantlets tended to catch fire readily. This was prevented by constantly saturating them with a solution of calcium chloride. In coast batteries the ready supply of sea water helped in this respect.

Final experiments with mantlets were made in 1871. They were issued in the following year, every iron shield supposedly being fitted with one. At Gilkicker it appears that only the 10-inch guns were fitted with mantlets. The fittings for these are still visible. There are no signs of any fittings in the 9-inch gun positions, which were not generally equipped with them.

### Modifications

By 1890 the ammunition stores in the basement had undergone some modifications. The lobbies had been sealed off at the shell passage ends and the issue hatches in the powder passage ends had been replaced by doorways. This meant that access to the powder magazines was now only possible by passing through the four cross passages which now

functioned as shifting lobbies. These were equipped with pegs and seats. Before passing a barrier and entering the powder passage men on duty in the magazines had to take off their boots, uniforms and outer garments and hang them on the pegs provided. They then could pass beyond the barrier in their socks and underclothes, put on their magazine working clothes and proceed to their duties in the magazines. On leaving the magazine area the procedure was reversed. Civilian visitors, or men other than those in duty parties, could pass the barrier only after they had brushed down their trousers, wiped their shoes and had put on the overshoes or galoshes provided.



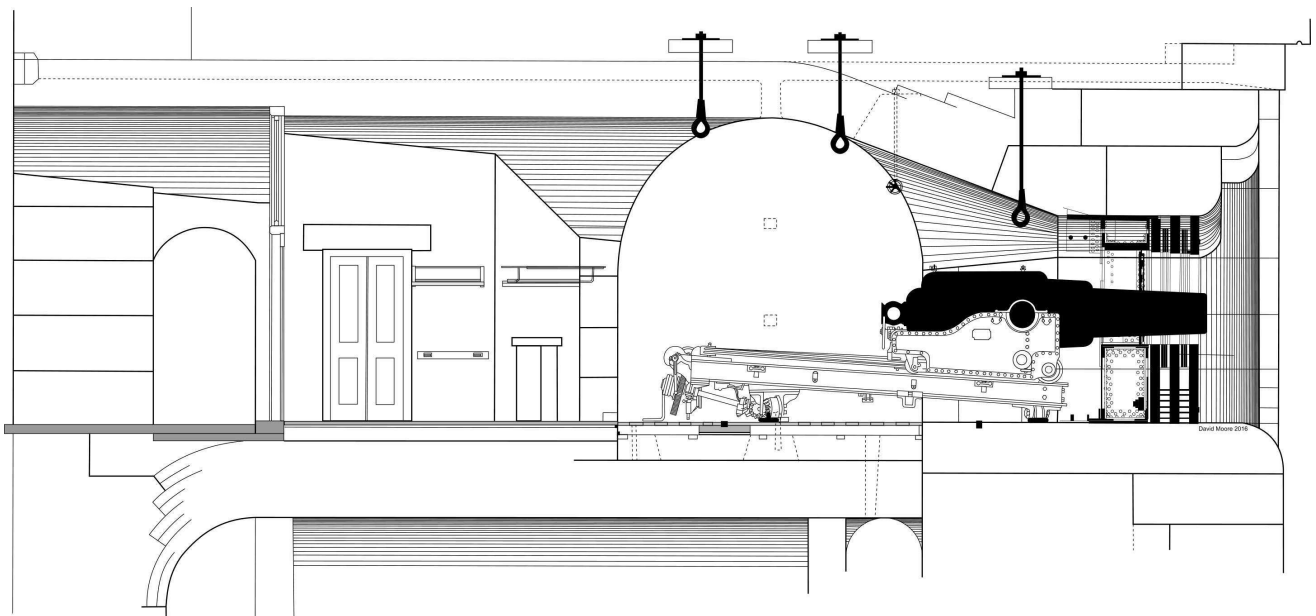
**Elevation of rear of casemate**

In the 1890s most of the land and sea front forts were re-modelled to take the latest armament. By this time magazines were no longer used to store powder in barrels. Instead charges were stored ready made and sealed into cylinders. These were placed on racks, the vertical supports of which were let into the arches and floor at Gilkicker. The walls were lined with battens to reduce the risk of damage and explosion when cylinders were moved. Each magazine, or 'cartridge store', had an issue hatch driven through the partition wall so that the cartridges could be passed directly from the magazine into the powder passage.

At each end of the barrack block, on the ground floor, was a cartridge filling room. Next to the one at the west end was a shell filling room. By 1900 the east cartridge filling room had been altered to serve as a lamp room whilst the west one was used as a laboratory, the shell filling room serving as its shifting lobby. The laboratory was used to fill and inspect shells and cartridges, and set fuses, two shell blocks being provided for this purpose. The passages connecting the basement to the barrack block were closed off at the barrack block ends in the early 1900s when the wall connecting the barrack to the gorge wall was removed.

### Firing the guns

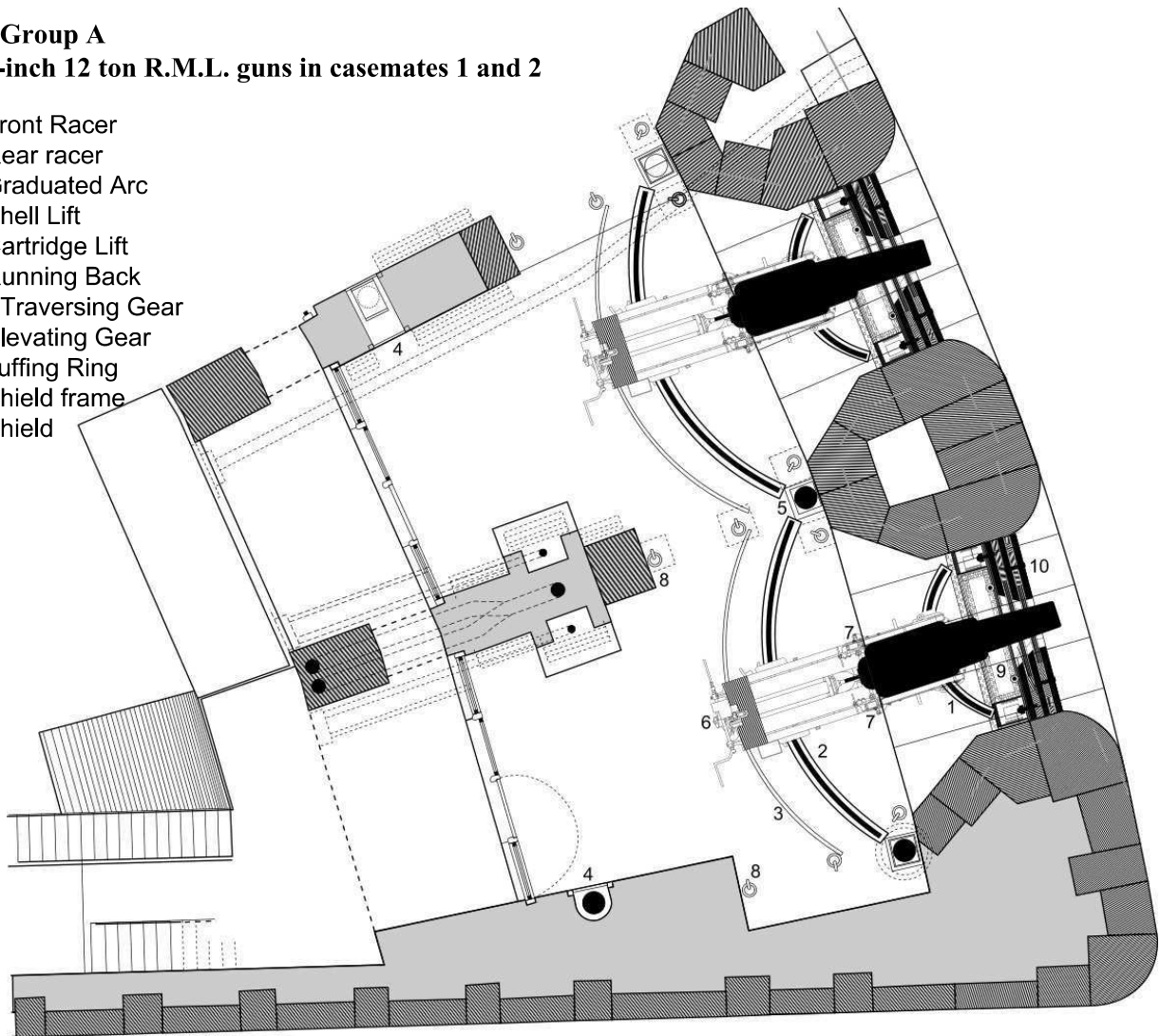
The 9-inch R.M.L. comprised of a barrel weighing 12tons, a carriage on which the barrel sat and a sloping platform that traversed around on racers. The carriage with its barrel was free to slide up and down on the slope of the platform. The racers for R.M.L. guns were of wrought iron or steel. Iron was used for 7inch and 9inch R.M.L.s except when the 9-inch was require to fire at high angles up to 35 degrees, where steel was preferred. In a shielded casemate such as Gilkicker a little hole was drilled at the position of the imaginary pivot to be used as a datum point for measurements. When a shield had not yet been provided the pivot point was localised, usually 8inches inside the front plate of the proposed shield. At Gilkicker this point was indicated on the plans as being 4ft back from the face of the granite. For the 9-inch guns the front racer (1) was set into the granite of the front wall at a distance of 6ft 3ins from the pivot datum. The rear racer (2) was set into the wooden flooring on concrete racer blocks. For the 9-inch R.M.L. this was 16ft 6ins from the pivot datum. The racers were held down by bolts passing through them and embedded into the racer blocks. Behind the rear racer a graduated arc of zinc (3), with marks showing degrees, was set into the floor of the casemate to indicate the bearing of a target. This was used in conjunction with a pointer fixed on the rear of the casemate platform.



Gun Casemate No.3 for a 10-inch R.M.L. with shield

**Gun Group A****2 x 9-inch 12 ton R.M.L. guns in casemates 1 and 2**

- 1 Front Racer
- 2 Rear racer
- 3 Graduated Arc
- 4 Shell Lift
- 5 Cartridge Lift
- 6 Running Back & Traversing Gear
- 7 Elevating Gear
- 8 Luffing Ring
- 9 Shield frame
- 10 Shield



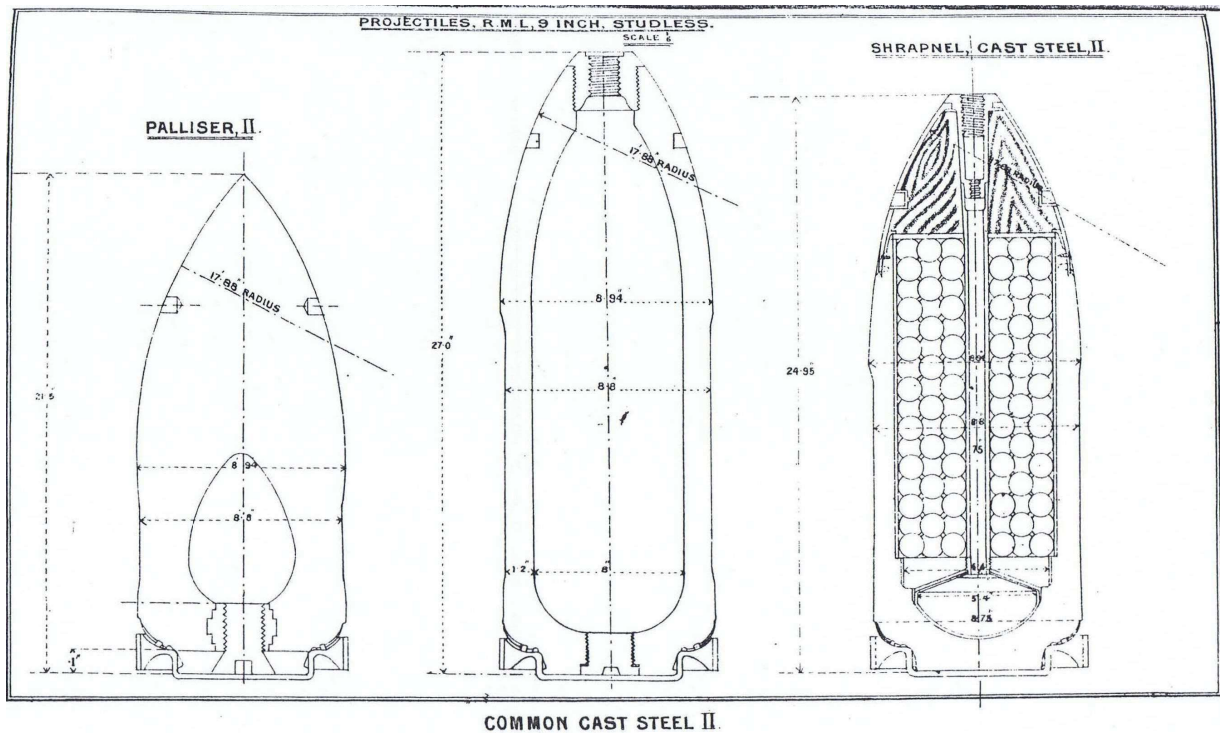
Shells were brought up from the magazine shell store beneath using the shell lift. (4) This emerged in the casemate to the rear of the gun platform. The shells were then placed on end to the front of the casemate near to the muzzle of the gun. Cartridges were brought up from the cartridge store using the cartridge lift (5) and were placed in a leather charge carrier close to the lift until needed. Shell and cartridge were not allowed to meet until they were presented to the bore of the gun. The two 9-inch R.M.L.s in casemates 1 and 2 acted as one gun group (group 'A'). Upon sighting a target, an observer on top of the fort called down the range and bearing for each gun group.

On the command 'Load' the cartridge was rammed into the bore; the correct size having been calculated by the No.1 in order to achieve the given range. This was followed by the shell; the studs on the shell engaging with the grooves in the bore of the barrel.

When this had been rammed home the gun was run up to the firing position.

Next it was laid for line. The No.1 of each gun the called for his gun to be traversed around on its racers to the required line using the traversing gear (6) on the rear of the casemate platform with the graduated arc as a guide. The barrel was then elevated to the required height using the elevating gears (7). A friction tube was then inserted into the vent of the barrel and a lanyard attached. On the command 'Fire' the lanyard was jerked and this ignited the cartridge.

The force of the charge acting on the heavy projectile cased the barrel and carriage to recoil back up the slope of the platform. This was checked by the compression hydraulic buffer beneath the platform. The bore was sponged out and the carriage was then ran back to the firing position with the barrel



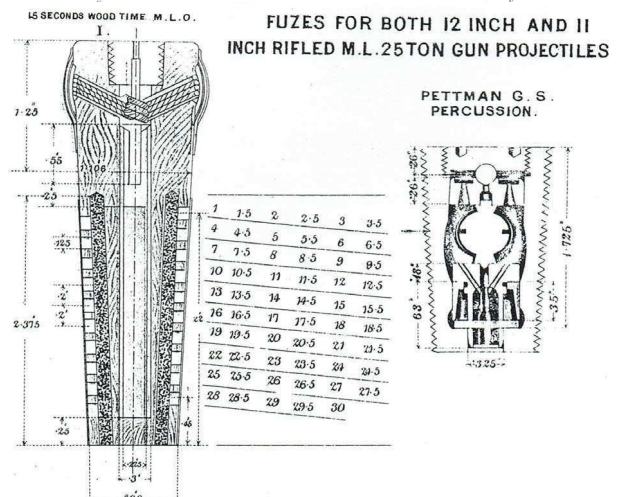
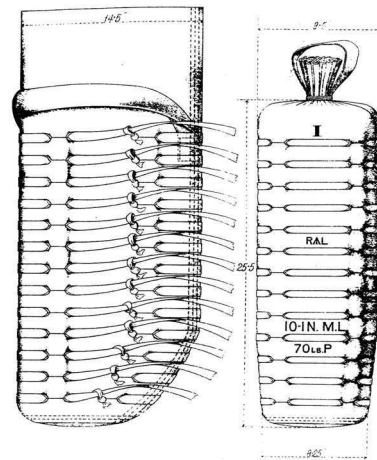
projecting through the gun port. The 9-inch guns were not fitted with mantlets like the 10inch R.M.L.s and upwards. Upon firing it was expected that most of the smoke and noise would be directed out of the gun port. When the gun was not in used the carriage was run back to the loading position.

At various places in the casemate around the gun were large iron rings set into the floor with others in the ceiling. These were used to install and mount the gun in the casemate. They could also be used to traverse the platform and to run the carriage up and back should the traversing and elevating gear fail.

### R.M.L. Ammunition

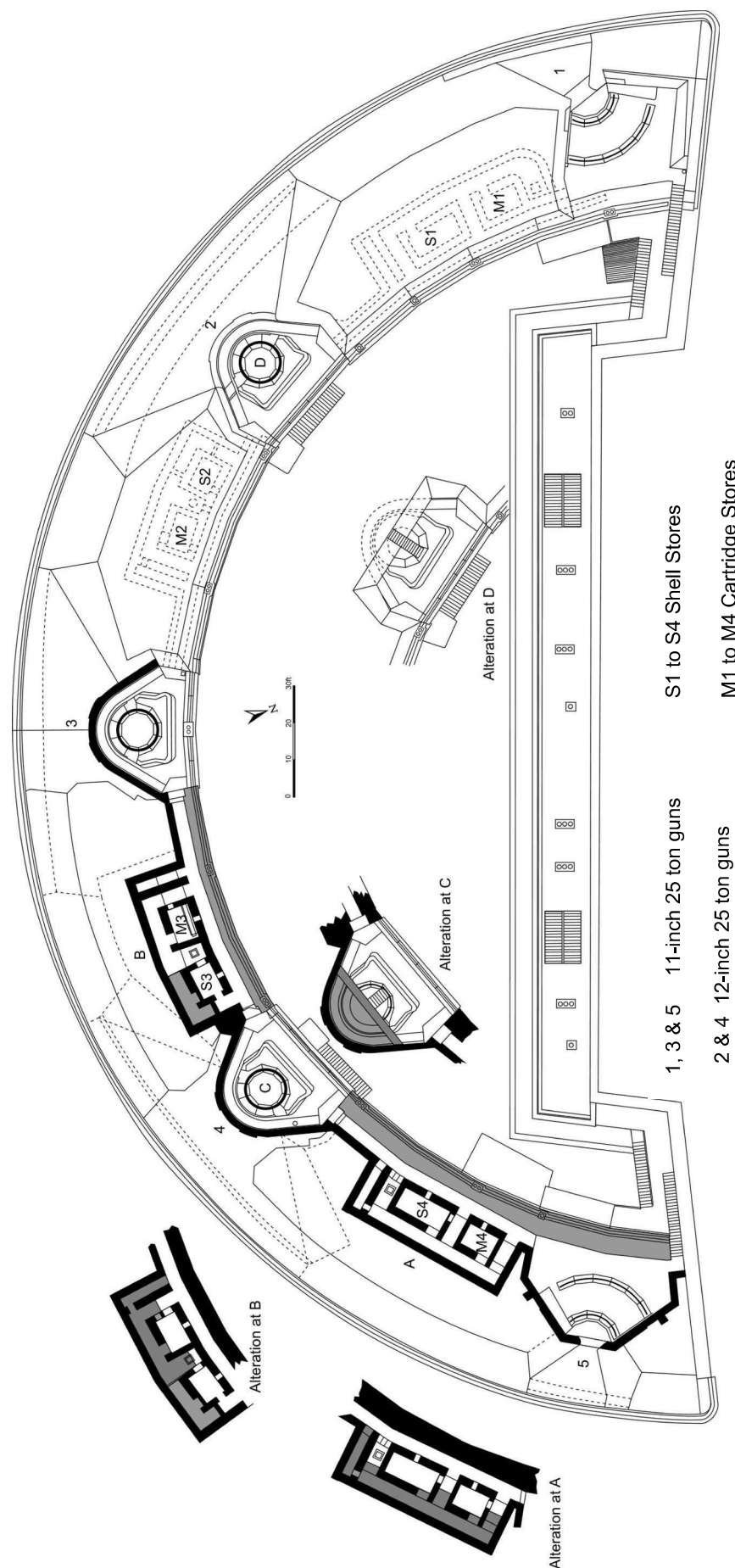
The ammunition for the 9-inch R.M.L. was Common, Case, Palliser or Shrapnel. In coast defence batteries Palliser was used for its greater penetration of armoured ships. Its head was a block of iron that had been chilled to make it intensely hard with the body left comparatively soft. The first fuzes used were the 'Wood Boxer' or Pettman and later the Time and Percussion. The 9-inch R.M.L. Marks I to IV had a muzzle velocity of 1440 feet per second giving a maximum range of 3,500 yards where it could penetrate 7.3 inches of wrought iron. The time of flight of the shell at this range was 9.21 seconds. At close range the maximum penetration was 11.3 inches of iron. The charges employed were 50lb. P full charge, 25lb. P half charge. Later a cordite charge was introduced.

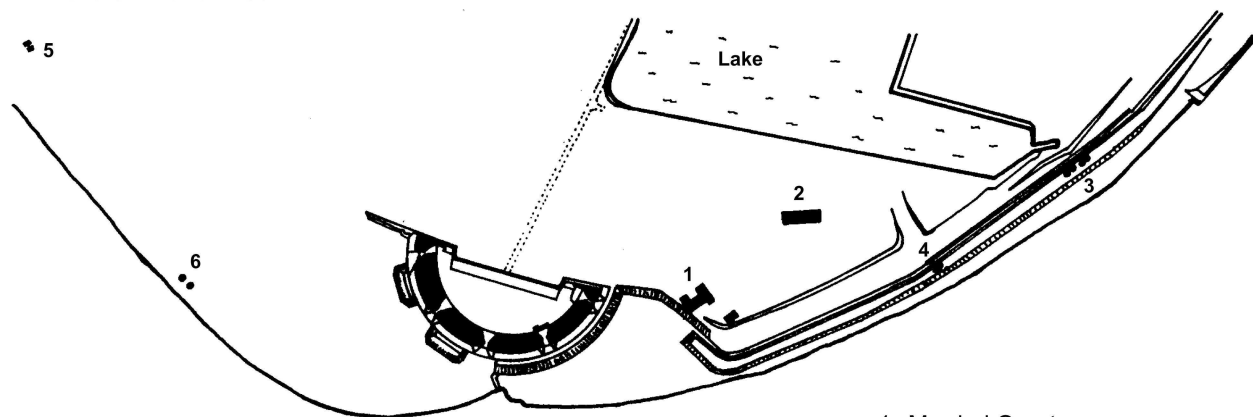
CARTRIDGE R.M.L. SILK CLOTH 10-IN. 70lb. P. MARK I | C |  
FULL CHARGE  
SCALE 1/4 (52858)





# Fort Gilkicker - Upper Battery 1863 with modifications in 1888 and 1890



**Fort Gilkicker 1892**

This plan of 1892 shows buildings used as married quarters and an artillery store to the east of Fort Gilkicker behind the embankment which connected it with Fort Monckton.

- 1 Married Quarters
- 2 Artillery Store
- 3 Receiving Station
- 4 Coastguard Watch House
- 5 Experimental Target
- 6 Transmitting Station

The roof positions at Gilkicker were completed under a separate contract, the contractor being Jaz Gosling. The authority for this was dated June 1864 and was commenced 17th June 1870. The estimated cost of Fort Gilkicker in 1869 was £61,395, with a further £38,725 needed for providing iron shields the actual cost on completion being £58,766, without the shields. The contract was completed by a local builder Mr. J. T. Leather.

**The upper battery**

Five gun positions were constructed, three for 11-inch guns of 25 tons on 'C' and 'A' pivots in positions 1, 3 and 5 and two for 12-inch guns of 25 tons on 'C' pivots in positions 2 and 4. The positions were numbered from the right (west to east). Each position had a look out platform. Between the gun positions were pairs of chambers, one for shell and the other for powder, numbered one to four. These were entered through covered passages from the gun positions. A shell lift from the basement stores emerged in each pair of magazines. In 1890 magazine no.7 in the basement was altered so that a powder lift could supply the roof positions via roof magazine number three. In 1888 the roof magazines were altered to protect them from shell fire by filling the outer portions with concrete.

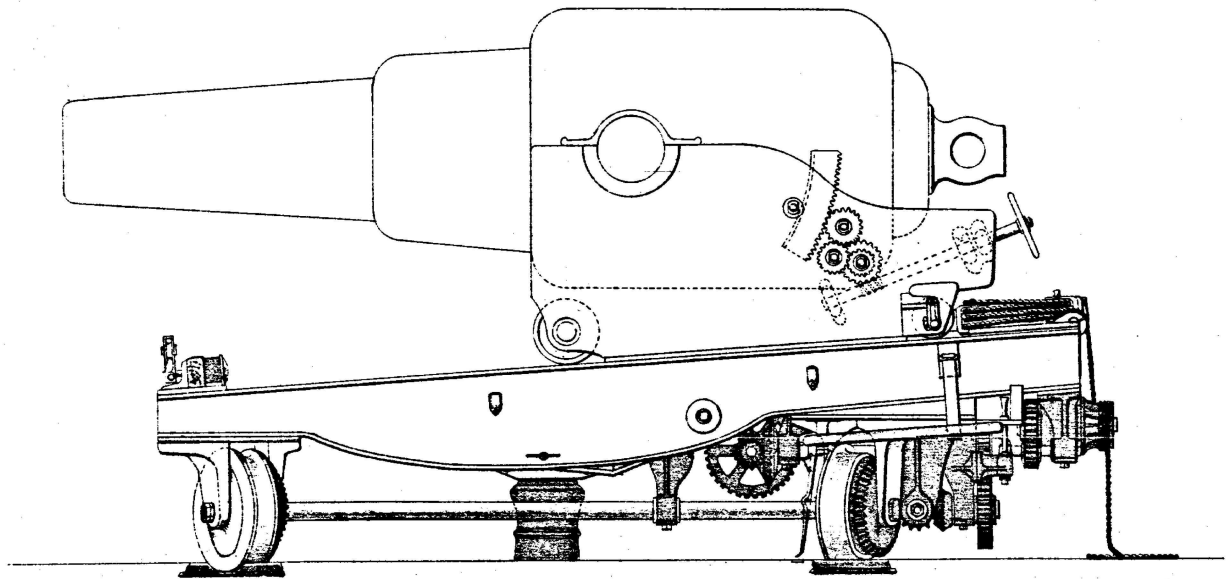
**A new lease of Life for Gilkicker**

The Imperial Defence Act of 1888 had allotted £3 million to construct additional fortifications at the naval and mercantile ports throughout the Empire

and this had enabled the re-arming of many of the existing works. Browdown Battery at Stokes Bay received a new lease of life with two 12.5 inch R.M.L. guns. At Gilkicker it was impossible to re-arm with the latest guns because of the restrictive nature of the casemates.

As early as 1884 the Defence Committee has recognised the possible danger of a shell entering through one gun port and disabling the gun inside. It was a distinct possibility that this could result in an explosion that would also disable the guns in adjoining casemates and a remote but possible scenario would cause the explosion to progress around the gun floor completely destroying the lower gun floor. To strengthen the superstructure and to afford greater security from projectiles bursting inside the work it was proposed to form traverses in some of the casemates by filling them with concrete. This would group the 10-inch guns in threes. At the same time the ditch was to be filled with earth to give security to the magazine. There is evidence that the same idea was put into action at other coast defence works, such as Coalhouse on the Thames. The cost of installing the traverses was £700.

An armament return of 1886 shows a proposal to remove the two 12-inch RMLs. A plan with alterations dated 1888 and 1890 shows the two empty positions were filled with observation platforms for range finders.



**Carriage, iron Wrought, Garrison, Sliding, Double Plate, Casemate or Dwarf, Rifled, M.L. 12 or 11-inch 25ton Mark 1**  
**Platform, Iron, Wrought, Traversing, Dwarf, with Traversing gear, Rifled, M.L. 12 or 11-inch 25ton "C" Pivot Mark 1**

In 1891 the General Officer Commanding had pointed out that two of the three 11-inch R.M.L.s on the roof were in an unsatisfactory position. (It had been reported by the Director of Artillery as early as 1872 that eight of the guns at Gilkicker could not clear the Isle of Wight and were therefore unable to be fired) It was proposed to remove them and mount them in a new battery near Fort Monckton. The R.A. and R.E. Works Committee however decided to remove them entirely as they were superfluous now that the armament of Puckpool Battery was strengthened and Browdown Battery had been constructed at the west end of Stokes Bay. In 1892 it was decided that they should be placed in Southsea Castle and this was approved.

Under the influence of Lord Sydenham Clarke, an entrenched member of the Blue Water school, and a confirmed critic of Palmerston's 'Follies' it was considered that, for the purposes of command in action, it was desirable to mount guns in pairs of similar natures, forming a group. Symmetrical batteries with two heavy guns in the centre and one smaller gun on each flank were to be rigorously excluded from defence projects. In August 1894, Clarke became Superintendent of the Royal Carriage Department. He advocated the use of the 9.2-inch and 6-inch guns as the staple armament of coast defences. A reassessment of the existing coast defences was undertaken with a view to substituting

the latest B.L. guns in place of the now obsolete RML guns.

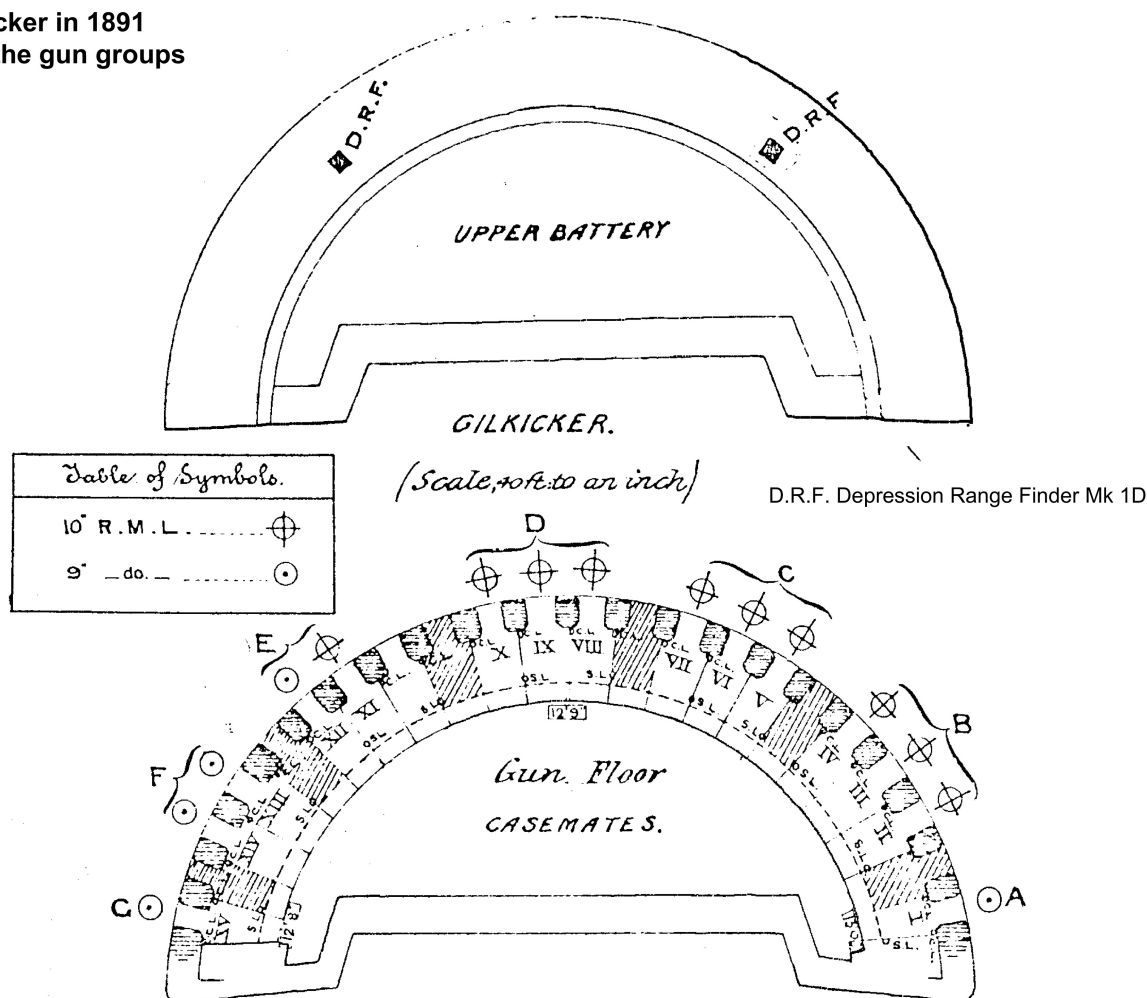
#### **Montgomery Report**

In 1898 the report of Col. Montgomery's Committee on '*The Substitution of Breech Loading and Quick Firing guns for existing R.M.L. guns*' recommended that Gilkicker be modified to take the latest Breech Loading guns in place of the remaining 10 x 10-inch and 5 x 9-inch R.M.L.s. The battery of R.M.L.s on the lower floor was to be removed whilst the upper battery was to be completely remodelled to take two of the latest 9.2-inch B.L. Mark X guns on barbette V mountings with two 6-inch B.L. Mark VII guns on CPII mountings for closer range support. The 9.2-inch B.L. was considered sufficient for use against Armoured ships up to a range of 6,000 yards whilst the 6-inch B.L. was considered competent for use against unarmoured ships, ships attempting to block channels by sinking in them and against ships trying to break through booms (blockers and boom smashers)

The Committee emphasised that fact that not only were the new B.L. guns more powerful than the R.M.L.s they were to replace but it was now very costly to supply the latest type of ammunition for the existing R.M.L. guns.

*'The 9.2-inch B.L. gun, Marks IX or X, when a quarter worn, has a penetrative effect nearly 50 per*

### Fort Gilkicker in 1891 showing the gun groups



cent greater than a new 12.5-inch M.L. gun. It can be fired three times as fast, and its projectile costs less than half that of the 12.5-inch projectile of the same class. The 6-inch B.L. Mark VII, when quarter worn, has a penetrative effect about 20 per cent greater than a new 10-inch M.L. gun. It can be fired nearly six times as fast, and its projectile costs about one-fourth that of the 10-inch projectile of the same class..'

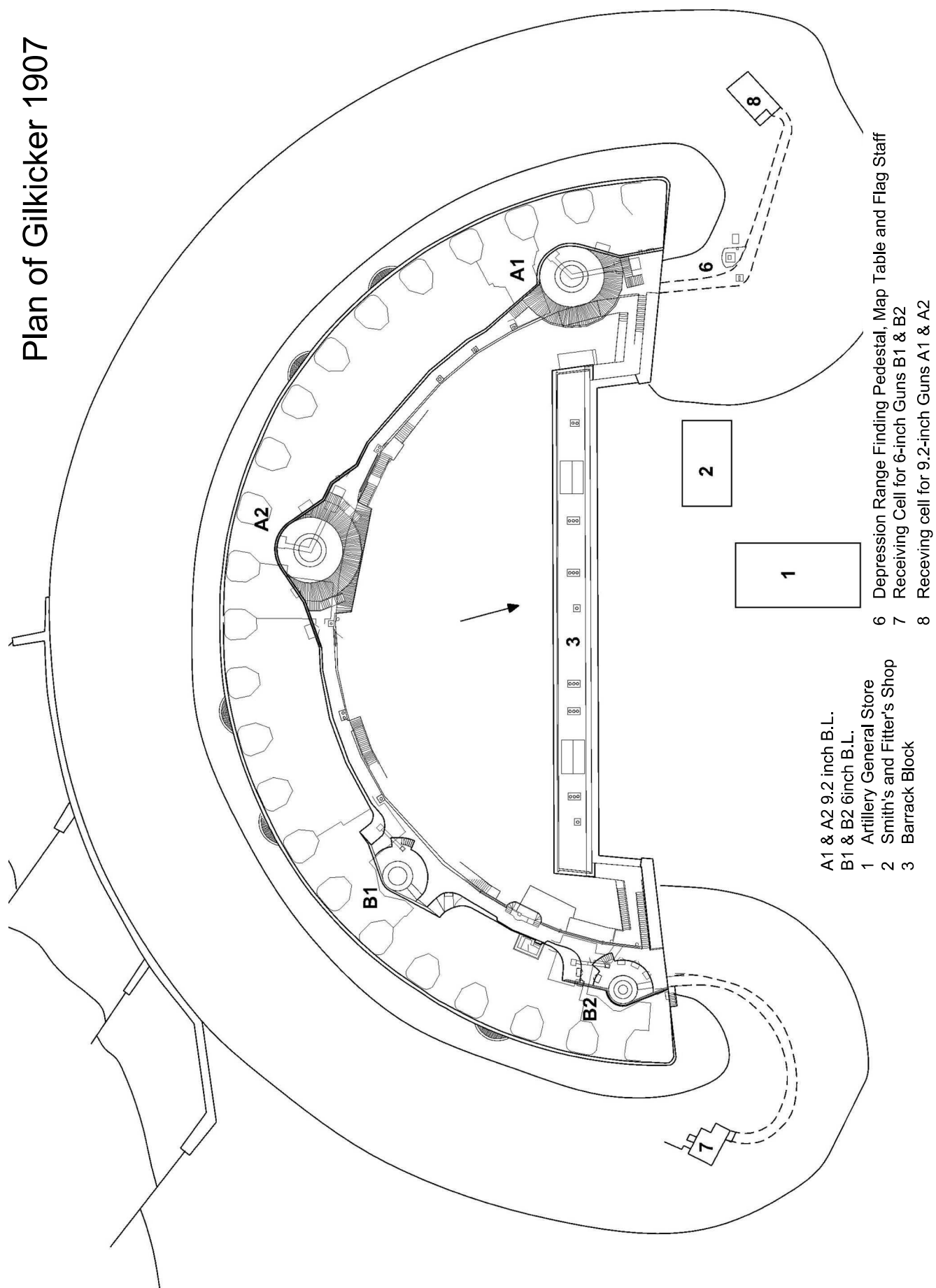
#### The 1902-1906 reconstruction

The authority for the work at Gilkicker was given in a War Office letter dated 21.02.1902 Portsmouth 6/1283. The work was completed on 26.10.06 at an estimated cost of £16,600 and an actual cost of £19,671. The contractor was W. Hill. The work included the rebuilding of the magazines, gun emplacements and barrack block. The magazines were altered to accommodate 1000 6-inch B.L. shells and 2000 cartridges with 500 9.2-inch B.L. shells and 1,000 cartridges. It was recommended that there should be 10% of armour-piercing shells and the rest should be lyddite, common shells. Accommodation

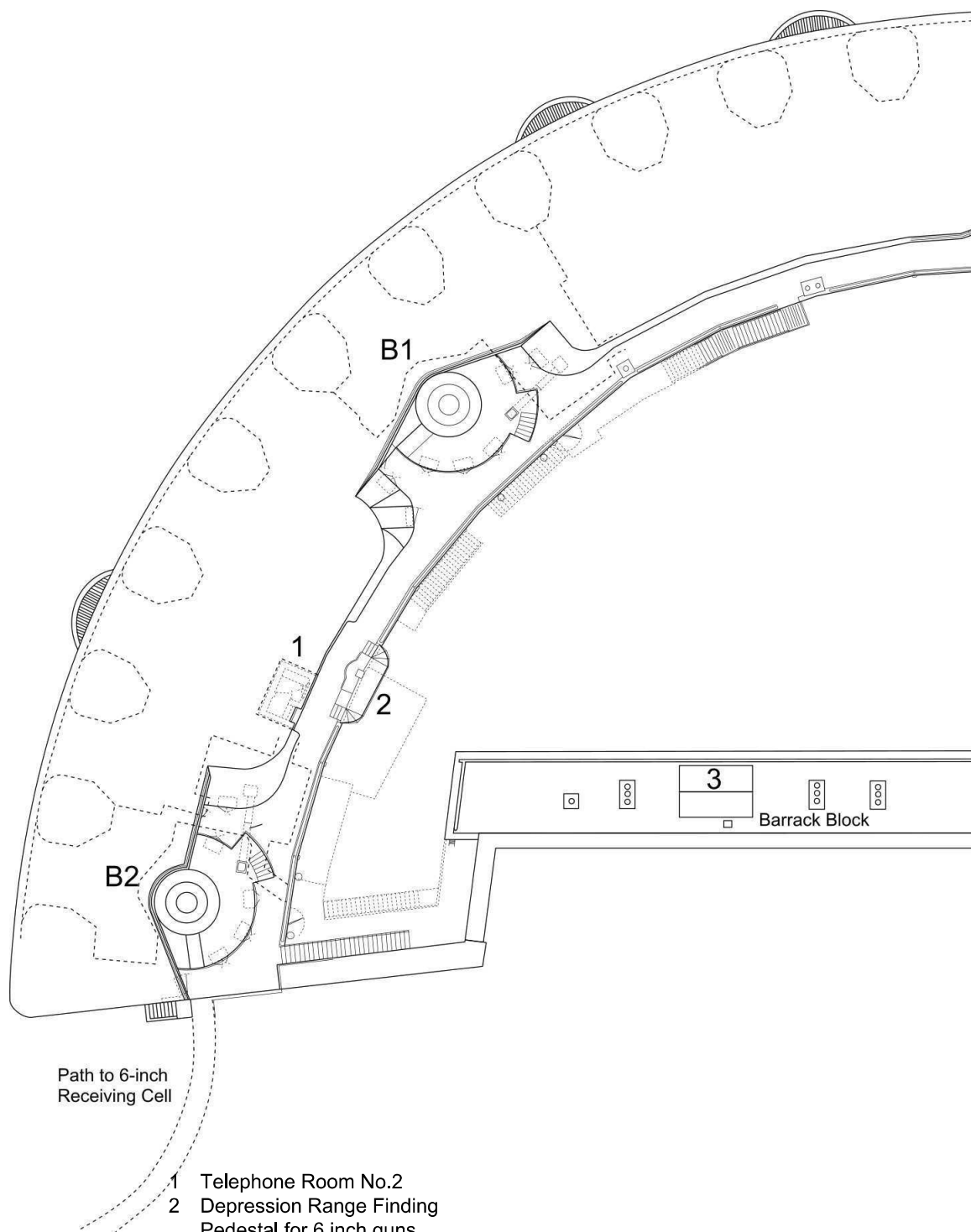
was to be for 130 N.C.O.s and men, 1 field officer, 3 Officers and 1 master gunner. Gilkicker was to form part of the defences of Spithead where it was anticipated that any ship that had run the outer defences would have two objects in view, to bombard the dockyard and harbour from Spithead or to enter the harbour. The Upper battery was virtually demolished and a new concrete apron was laid to hide the B.L. gun emplacements. The west end of the fort was modified to take the two 9.2-inch Mark X guns to prevent ships from lying at anchor in Spithead and the two 6-inch Mark VII guns were mounted at the eastern end where they could counter blocking ships entering the harbour mouth. Gilkicker was to act with the new guns proposed for Browdown Battery (2 x 9.2-inch B.L.) and Stokes Bay No.2 Battery (2 x 6-inch B.L.) to deter ships from lying further west within a range of 7,000 yards of the harbour. Following the usual convention of numbering guns from right to left the 9.2-inch guns were designated as 'A' battery, whilst the 6-inch guns were designated as 'B' battery.



## Plan of Gilkicker 1907



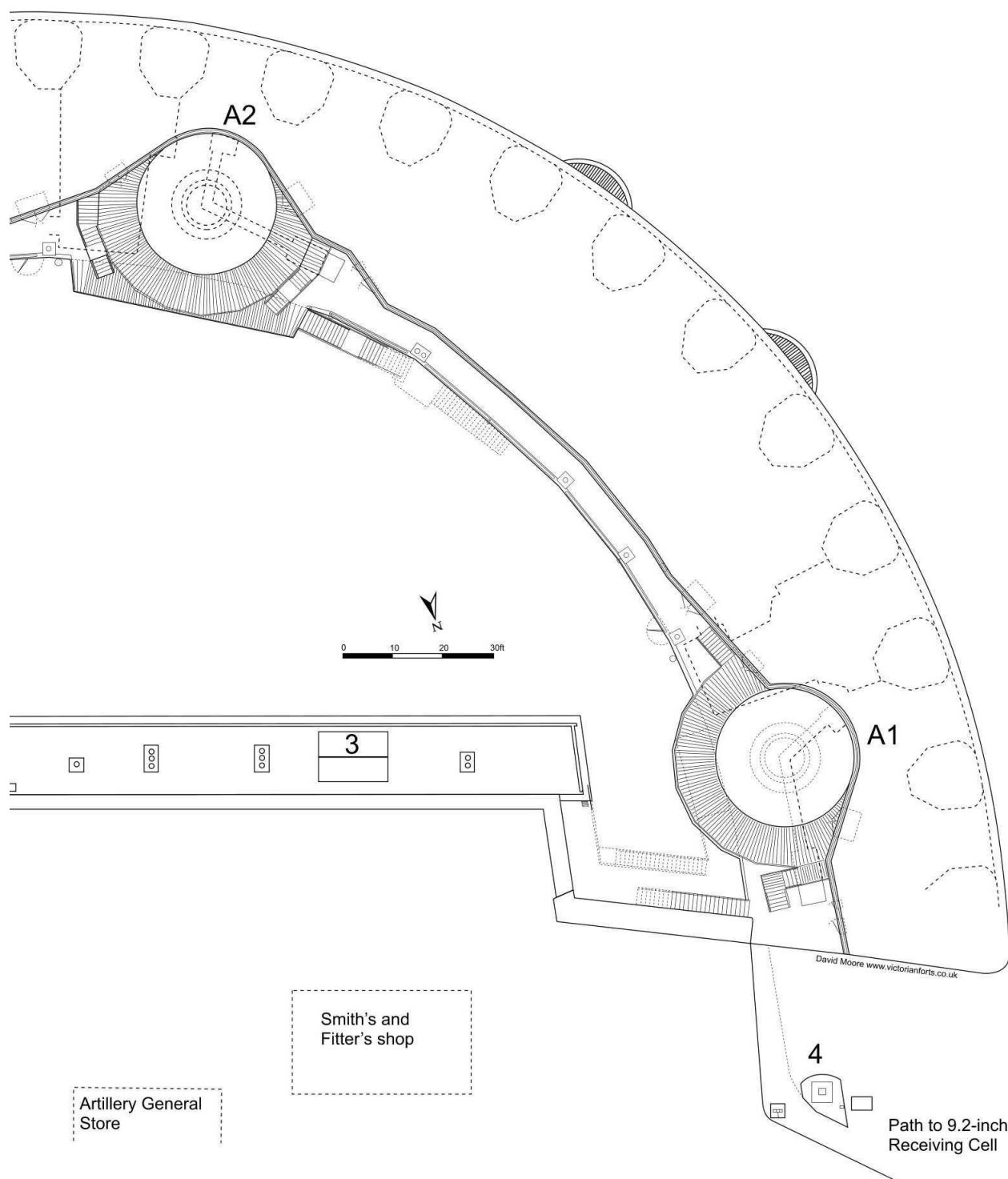
## Fort Gilkicker - Upper Battery 1907

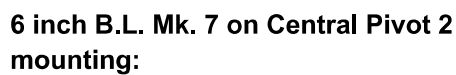
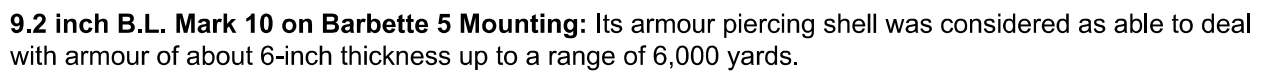


Path to 6-inch  
Receiving Cell

- 1 Telephone Room No.2
- 2 Depression Range Finding  
Pedestal for 6 inch guns
- 3 Reserve Fire Tanks  
(3,500 gallons each)
- 4 Depression Range Finding  
Pedestal for 9.2 inch guns,  
chart table & flag pole
- 5 Air Vent from casemates

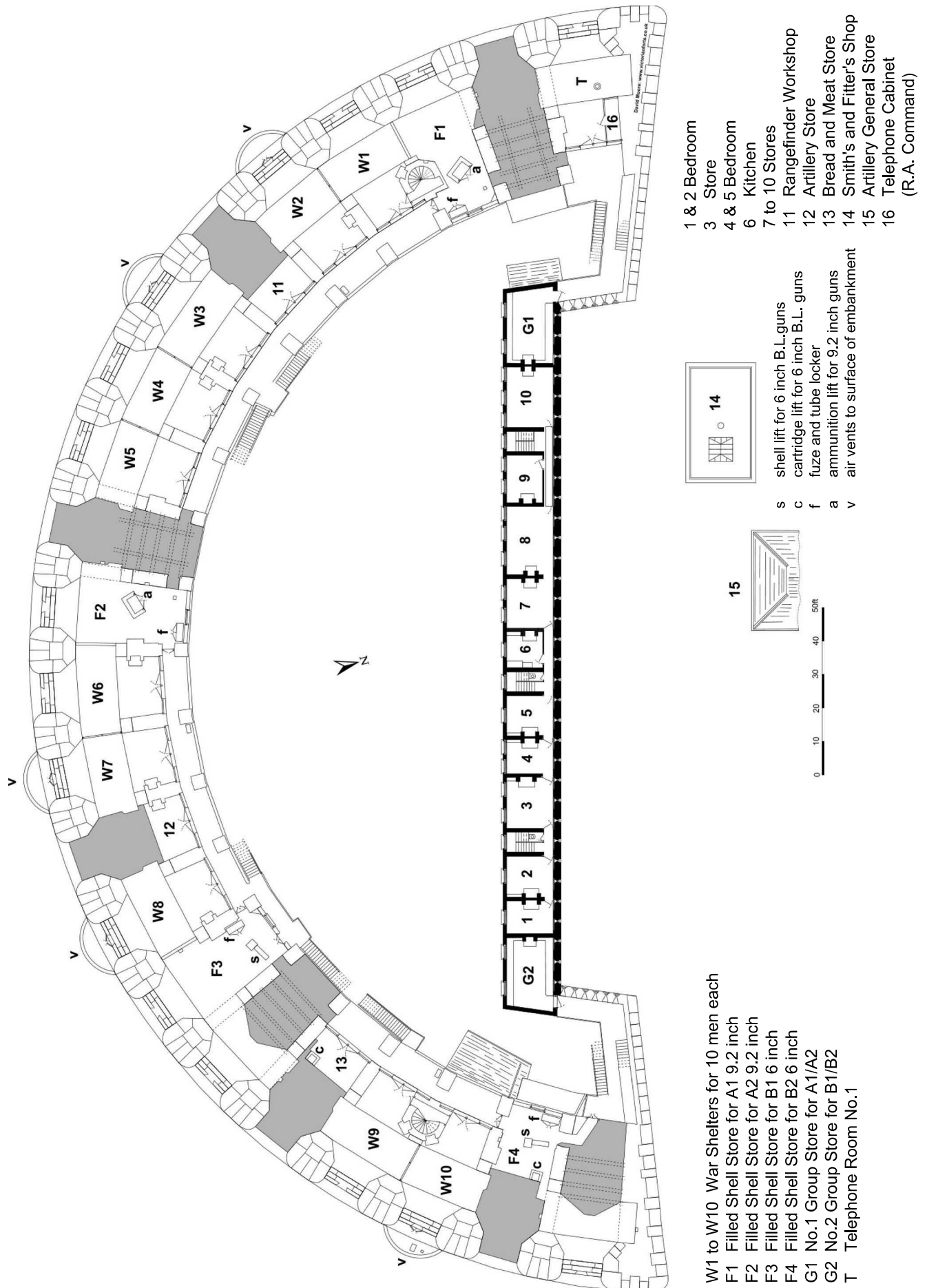
- A1 9.2 inch B.L. Mark 10 on Barbette V
- A2 9.2 inch B.L. Mark 10 on Barbette V  
(1915 - 3 inch 20 cwt. Q.F. A.A.)
- B1 6 inch B.L. Mark 7 on C.P. 2
- B2 6 inch B.L. Mark 7 on C.P. 2



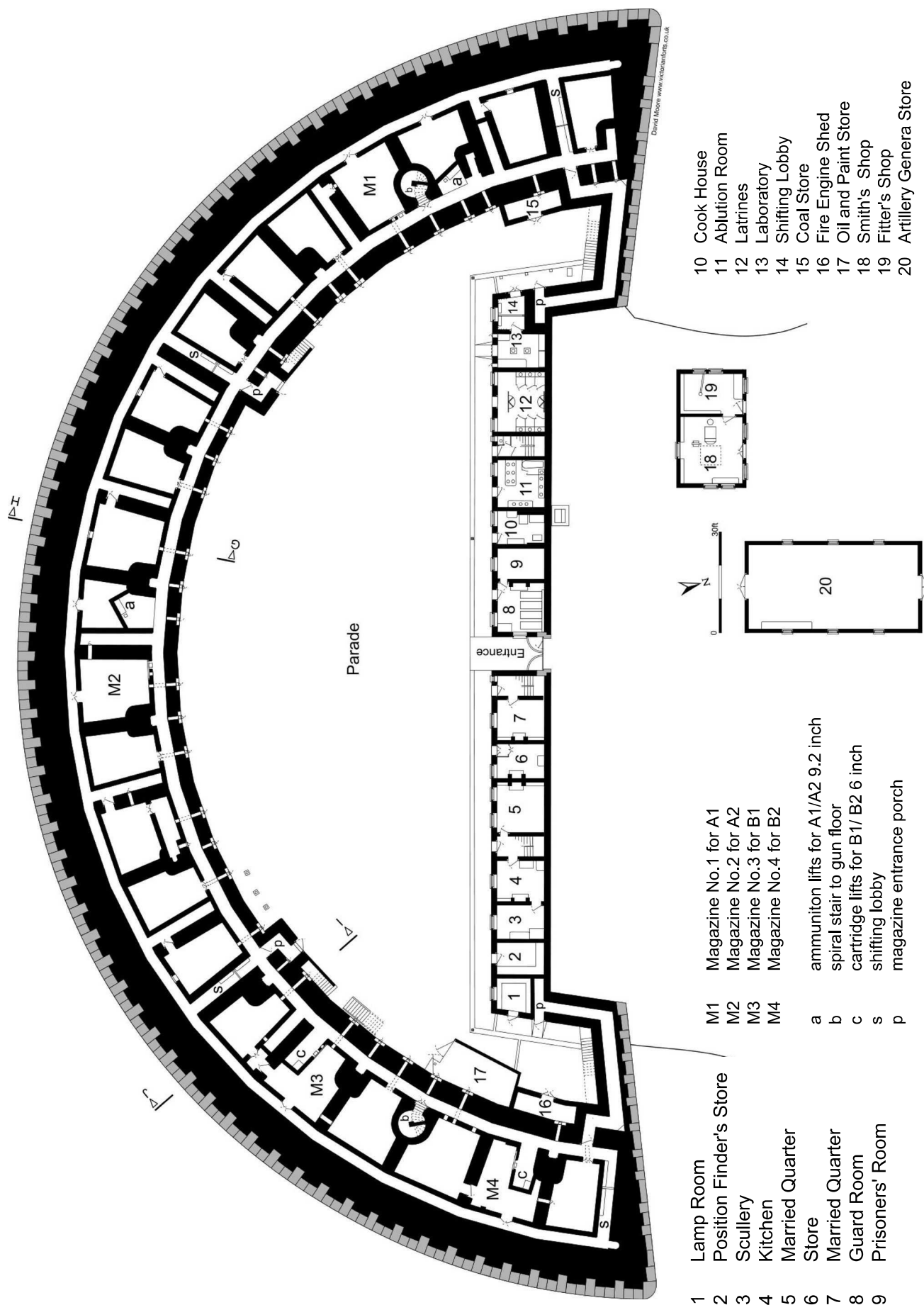


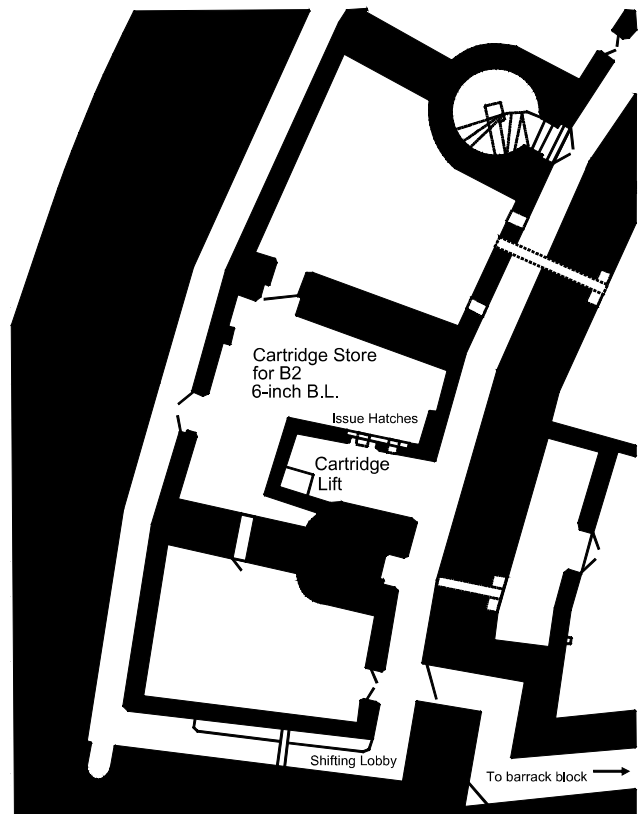
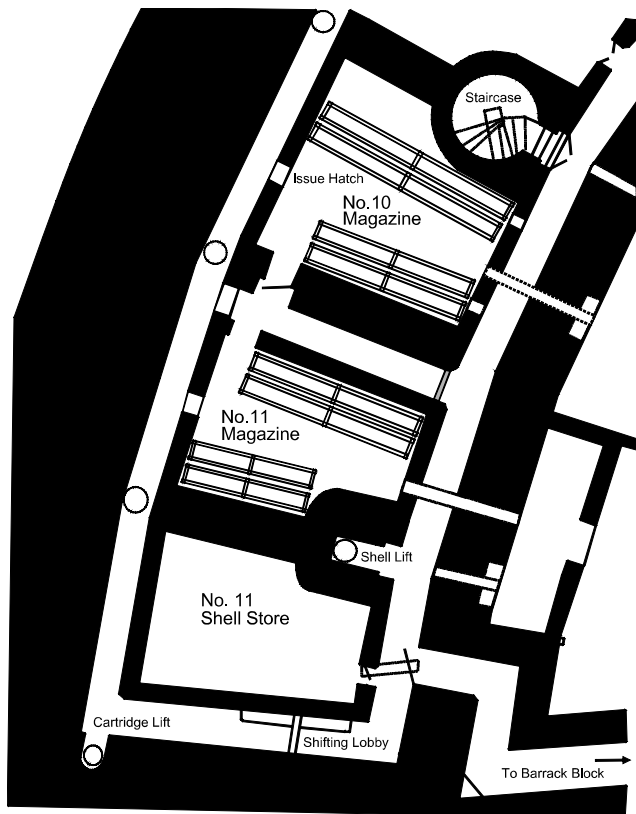


## Fort Gilkicker - Under Plan 1906



## Fort Gilkicker - Ground Plan 1906





**Modification of the fort for the 6-inch ammunition stores**

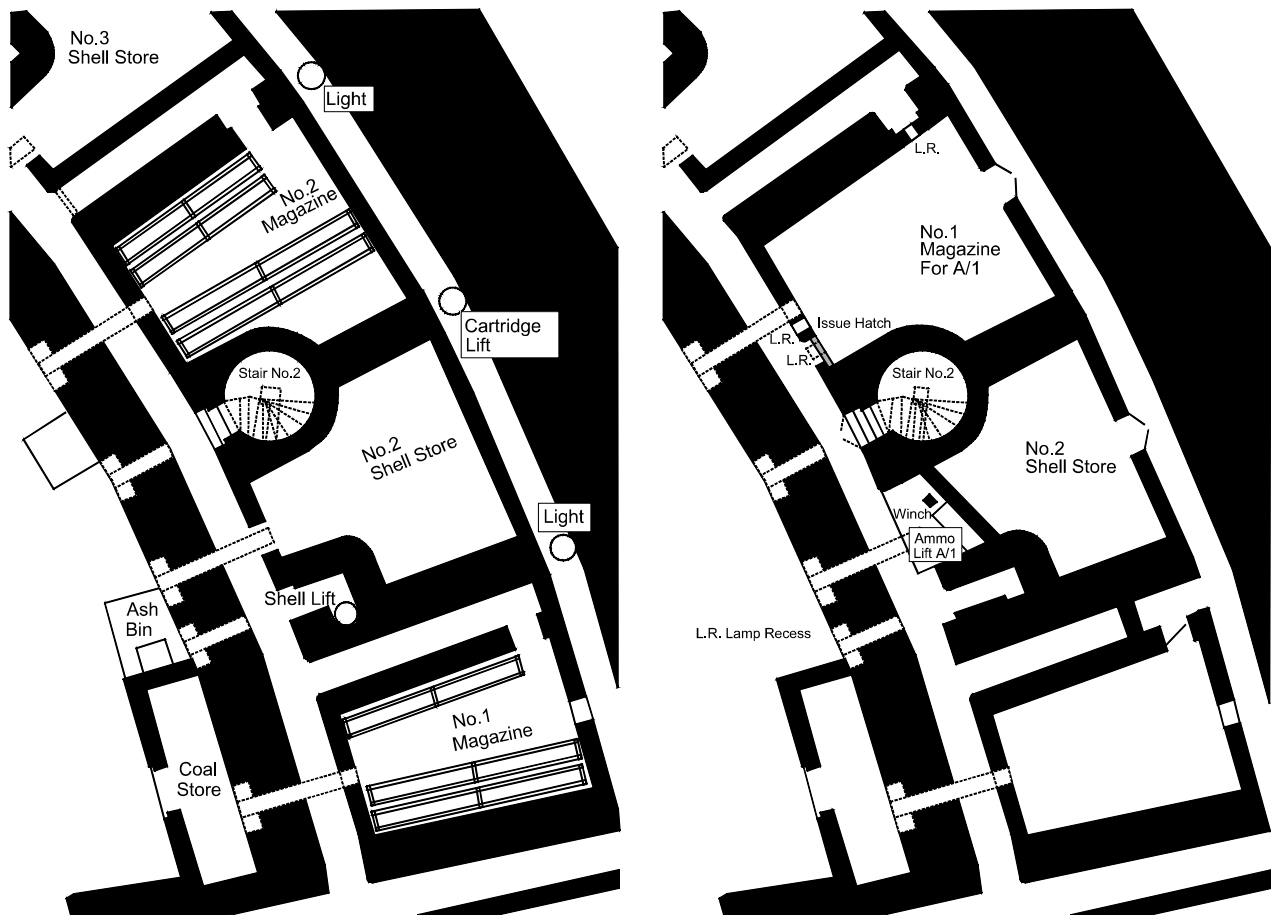
#### **The new magazine arrangements**

The ammunition arrangements for the 9.2-inch B.L.s at the fort were effected by converting two of the original magazines (nos 2 and 6) on the basement level to cartridge stores with issue hatches driven through to the old rear shell passage. An adjacent shell store (nos 2 and 6) was modified by removing the wall partitioning it from the shell passage and adding another further back to allow the fitting of a winch and table lift. This lift ran to the upper battery where it emerged on the gun floor close to the gun emplacement. On the old lower gun floor two of the original gun emplacements were extended (casemates 3 and 11) by enclosing the veranda to the immediate rear so forming a filled shell store. The ammunition lift from the basement cartridge store ran up through the filled shell store in a brick shaft where two doors allowed the loading of filled shells, the lift serving a dual purpose. The magazine arrangements for the two 6-inch B.L.s was similar to that for the 9.2-inch B.L.s. Two basement magazines (9 and 11) were converted to take 6-inch cartridges with issue hatches cut through new partition walls to the cartridge lifts which were themselves driven up through the brick arches of the original battery to the gun emplacements on the roof, no mean feat. The shell stores for the 6-inch B.L.s were accommodated

part in this defence. Gilkicker was fitted with four fighting lights, two on each flank, with the Crossley generators fitted inside casemates 19 and 20. From there cables ran out through the gun port of casemate 20 and up through the earth bank from where they ran out to the fighting lights, which were mounted on concrete pads on the beach below.

#### **6-inch B.L.**

The 6-inch B.L. coast defence gun was the mainstay of Coast Defence. Built by Vickers, many of them remained in service until the abolition of Coast Artillery in 1956. With the Mark 7, as installed at Gilkicker, the Welin breech screw allowed the breech to be opened and shut in a fraction of the time needed for the three motion breech mechanism used on previous marks of gun. It could fire a 100lb shot through 15 inches of plate at 1,000 yards. The emplacement consisted of a concrete apron with a pedestal fitted into a circular pit behind it. Cast into the rear apron of the pit were shell and cartridge recesses. The shells emerged through a hatch in the top of the concrete emplacement at breech level whilst the cartridges came up a separate cartridge lift to one side at gun floor level. Also cast into the sides of the emplacement were recesses for the position finding dials and battery.



Modification of the fort for the 9.2-inch ammunition stores

### 9.2-inch B.L.

The 9.2-inch B.L. was introduced to compete with the Krupp 24cm (9.45-inch). Various marks were introduced, first for the Navy but then adopted for Coast defence. In 1899 the gun was redesigned to improve its rate of fire and the mark 10 came into being. Placed on a high pedestal to fire over a parapet of 6ft. 6in, it was surrounded by a circular platform, or shell pit shield, at parapet level.

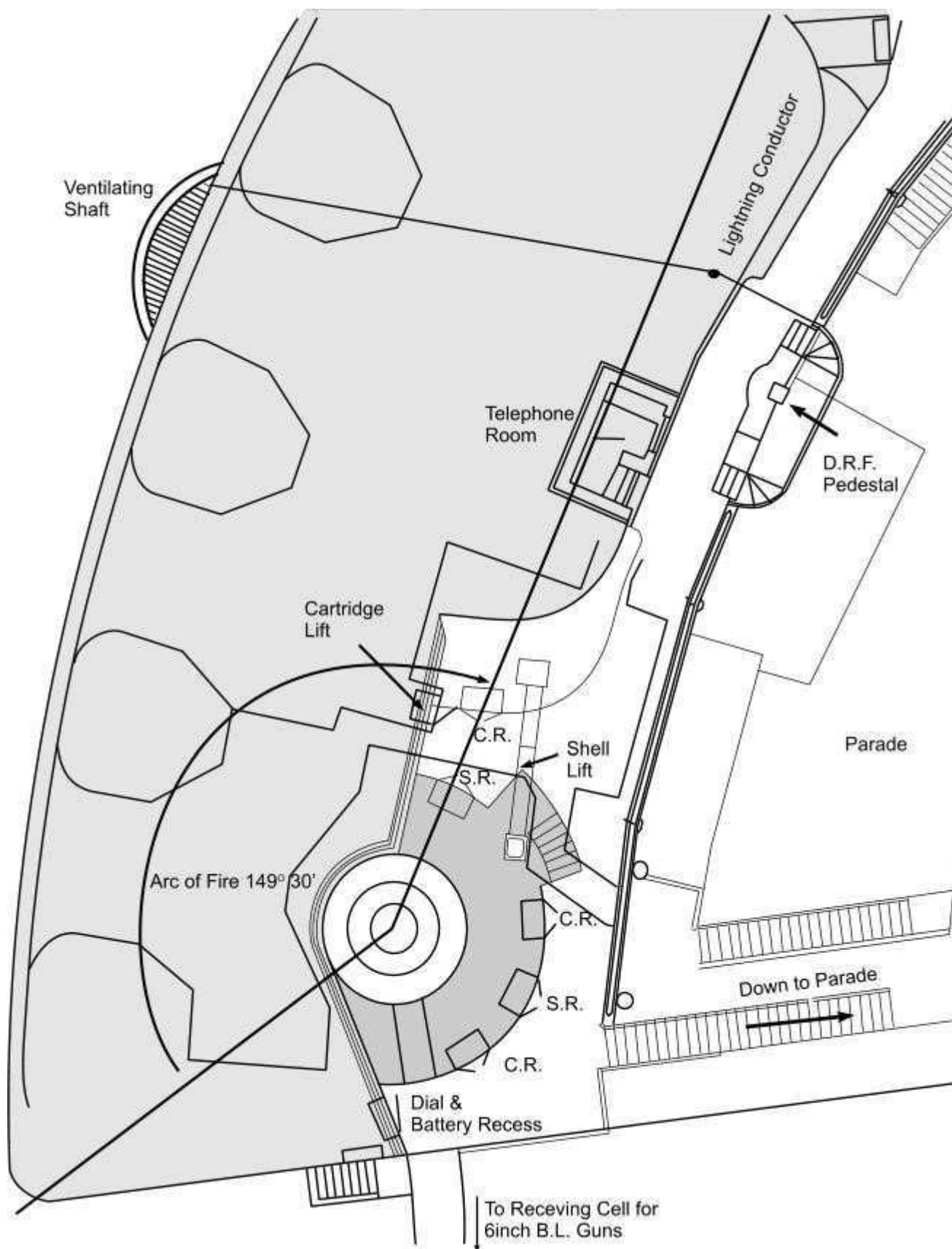
### Ammunition Supply

At Gilkicker the ammunition came up from the shell and cartridge stores below on a table lift which issued directly onto the floor of the emplacement from a recess in the concrete apron. From here the shells were barrowed around to be stored on end in a recess beneath the parapet. A hydraulic ram lifted each shell up to one of six trolleys hung beneath the platform on a track. The trolley was traversed around the track to another hoist at the breech of the gun which revolved with the mounting. Here the shell was pushed through a trap in the shield onto a loading tray and was then hand rammed into the breech. The cartridges also came up from the

cartridge store on the same ammunition lift, but not at the same time as the shells for safety reasons. Cartridges were stored in cartridge recesses, also built into the concrete apron of the emplacement, either side of the gun mounting. Each cartridge was carried by hand to the breech end of the gun where it was inserted into the breech by hand. The hoists for the shells were operated by a hydraulic accumulator fitted into a pit to the rear of the emplacement. This stored the energy from the force of the gun recoiling but could also be pumped up by hand by members of the gun crew. A trench containing the hydraulic pipes ran from the accumulator, underneath the gun mounting to the front hydraulic lift. A deep pit was required to take the ram when the lift was in the lowered position.

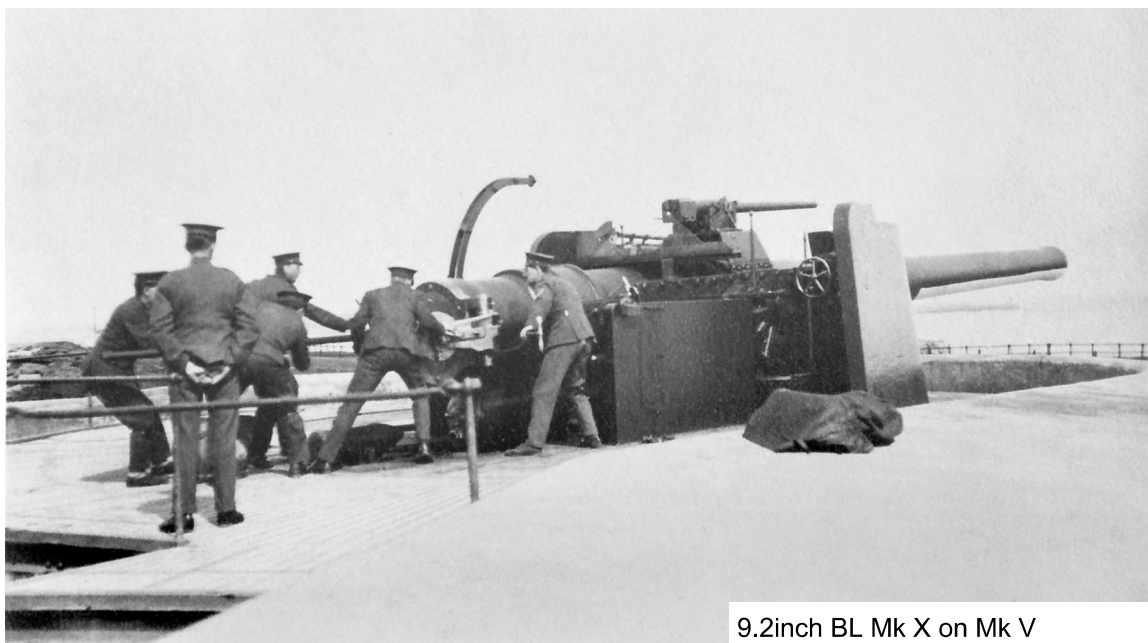
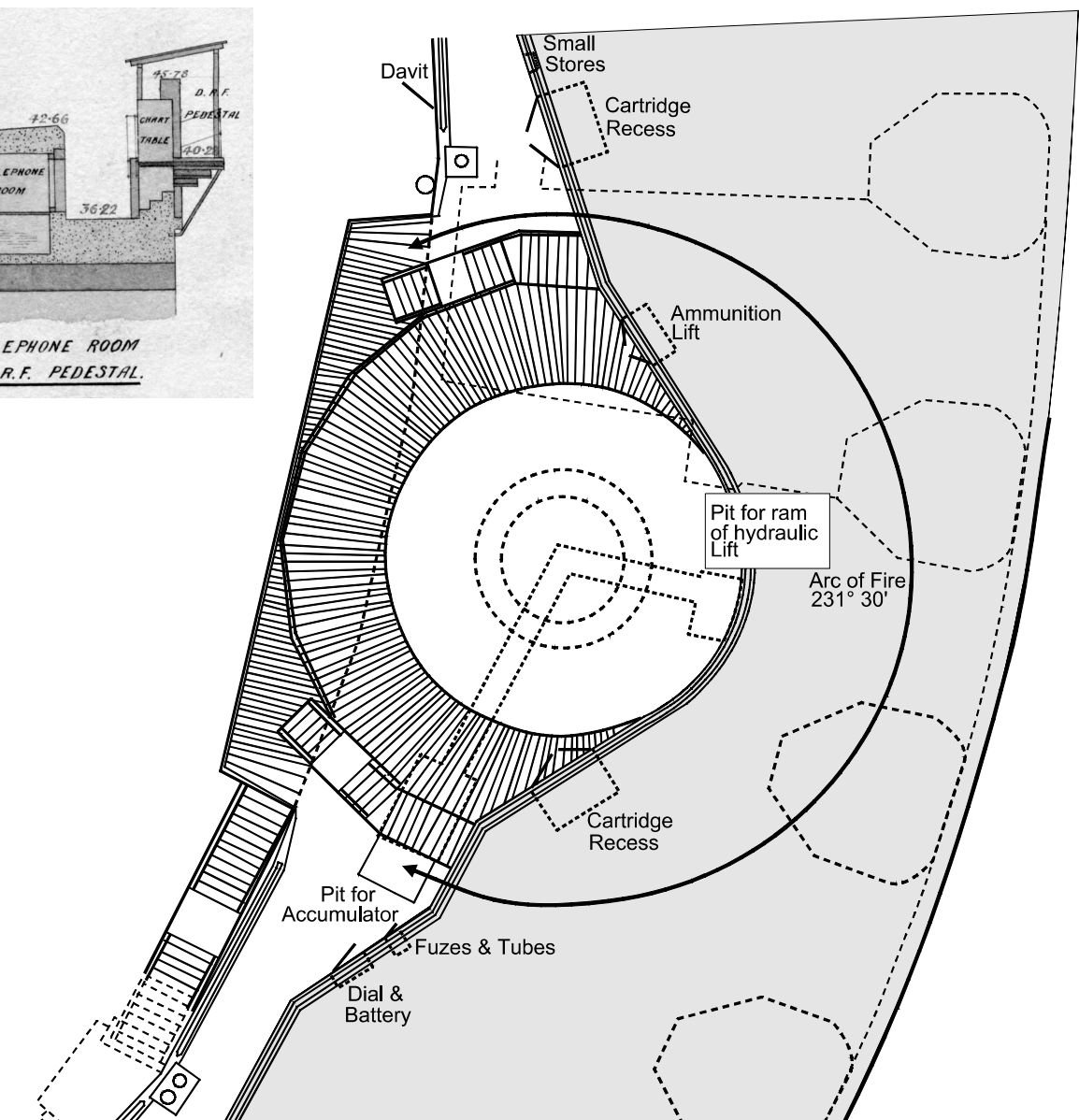
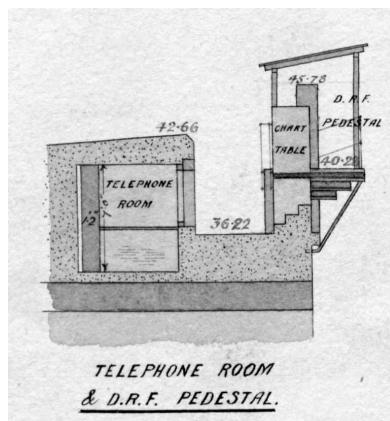
The Mark X 9.2-inch B.L. fired a 380lb armour piercing shell with a 120lb cordite charge. It had a maximum range of 29,000 yards. The Mark 5 mounting weighed 129 tons with shield. It required a crew of 1 officer and 15 gun numbers.



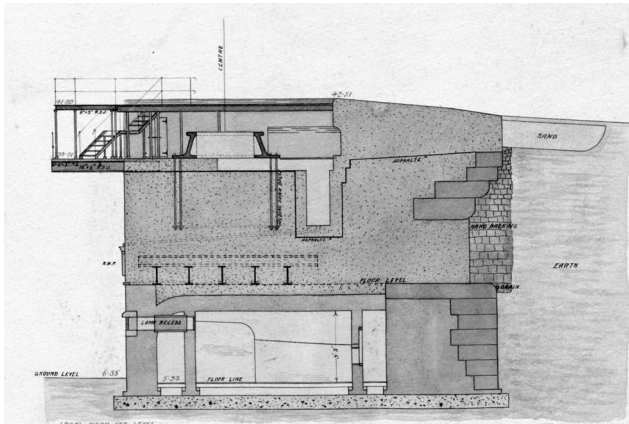


**Plan of 6inch B.L. Emplacement B2 with the 6-inch D.R.F. Pedestal.**

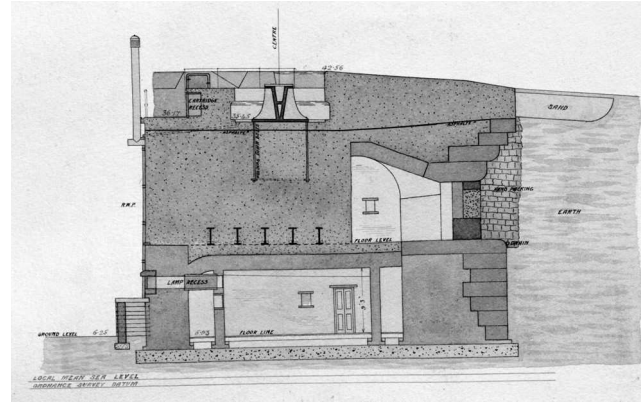
S.R - Shell Recess C.R. - Cartridge Recess



9.2inch BL Mk X on Mk V



Cross section G - H  
through 9.2 inch 'A2'



Cross section I - J  
through 6 inch B.L. 'B1'

### Fire Control

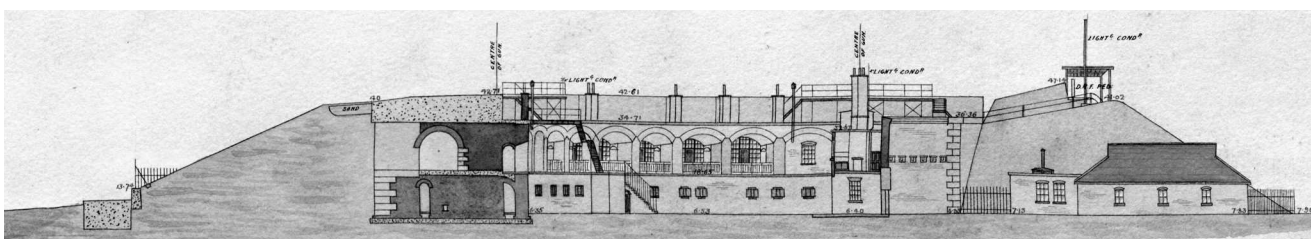
Fire control was greatly improved following the introduction of the Watkin system of range finding using Depression Range Finders (D.R.F.) and Position Finders (P.F.). It was natural that Fort Gilkicker should receive a more up-to-date system of range finding and fire control than that in use for the old R.M.L.s. Each gun battery was fitted with a depression range finder Mk 2D and auto sights. That for the 6-inch battery was placed on a pedestal cantilevered out from the walkway in rear of the gun emplacements. The one for the 9.2-inch battery was placed on the extreme west end of the earth embankment north of A1 emplacement. Each battery was also served by a Short Base observation Station Position Finder. The transmitting station for the 6-inch battery was added to the West bastion of Fort Monckton whilst its receiving station was a cell built into the east end of the earth embankment. The transmitting station for the 9.2-inch battery was placed on No.4 Stokes Bay Battery to the north and west of Fort Gilkicker. The receiving station was built into the west end of the earth embankment.

The bearing of the target was determined by the transmitting instrument and was then relayed to the receiving cell by telephone line. An Observer in the receiving cell would direct the telescope of his instrument on the bow wave of the target ship. The

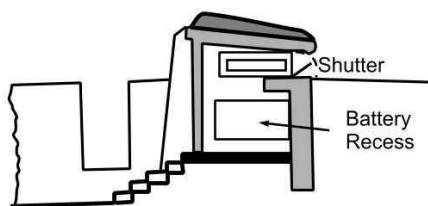
instrument would automatically combine both readings and would then send the appropriate range and bearing to the dials on the gun emplacement. The gun would be laid accordingly and the 'ready' signal returned to the receiving cell. The observer could then fire the guns at the exact moment necessary to bring the shell and the target together.

The receiving cell of the 6-inch range finder is unusual in that it has a 'chimney' with a reflector at its lower end. The top of this chimney has two slots in it, one of which may be aligned on the transmitting cell in the west bastion of Fort Monckton. The other, which is at right angles to the first, appears to allow the instrument to be aligned on one of the Spithead forts (No Mans Land) out in the sea. It is probable that this served as a means of calibrating the instrument; for this a fixed datum point was necessary. known. The receiving cell for the 9.2-inch guns does not have this feature.

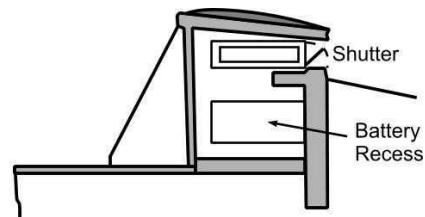
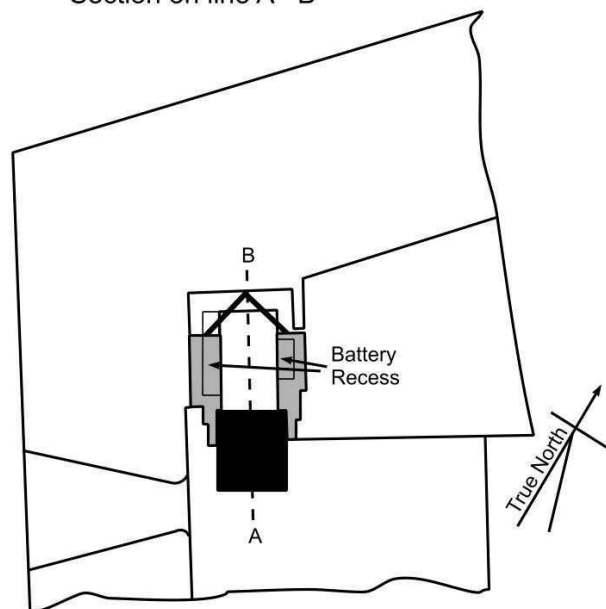
Should the D.P.F.s and P.F. be out of use then the guns would be used with autosights. These, in simple terms, allowed the guns to be aimed directly by sighting through the telescope of the autosight, which determined the range by using the fixed height of the gun above sea level as the base of the triangle formed to the target and the angle so formed.



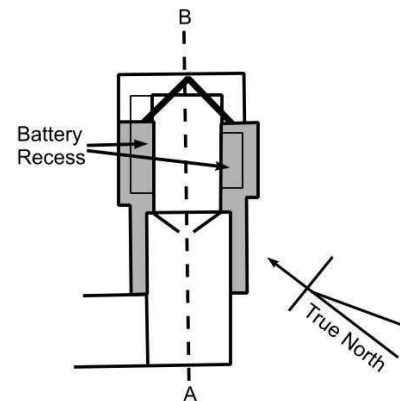
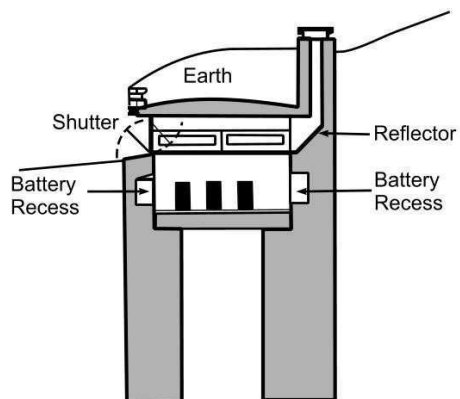
Section through Gilkicker 1907

Section and  
plan of  
Transmitting  
CellsLeft 6-inch  
Battery on  
the West  
Bastion of  
Fort  
Monckton

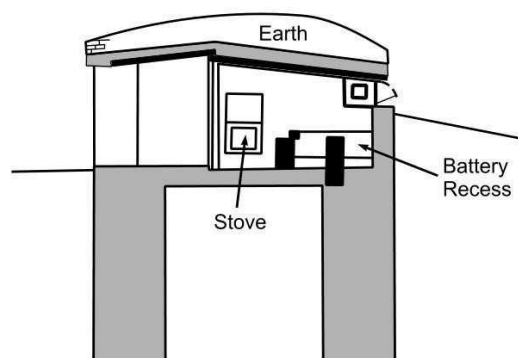
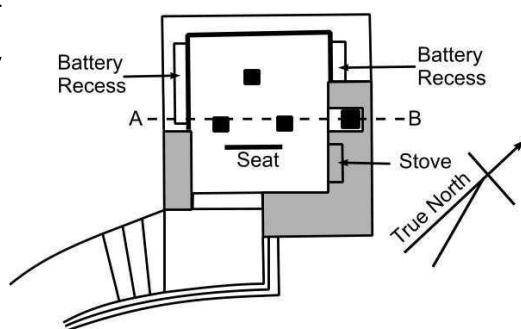
Section on line A - B

Right  
9.2-inch  
Battery on  
No.4 Battery  
Stokes Bay

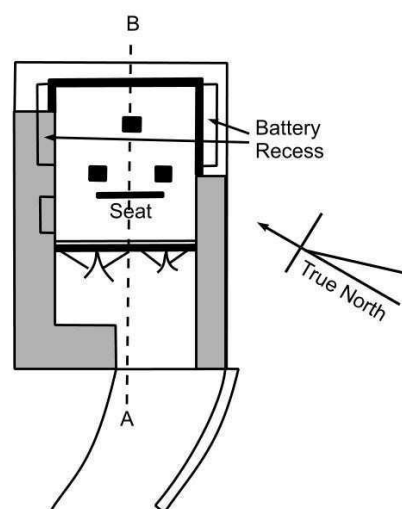
Section on line A - B

Section and  
plan of  
Receiving  
CellsLeft 6-inch  
Battery

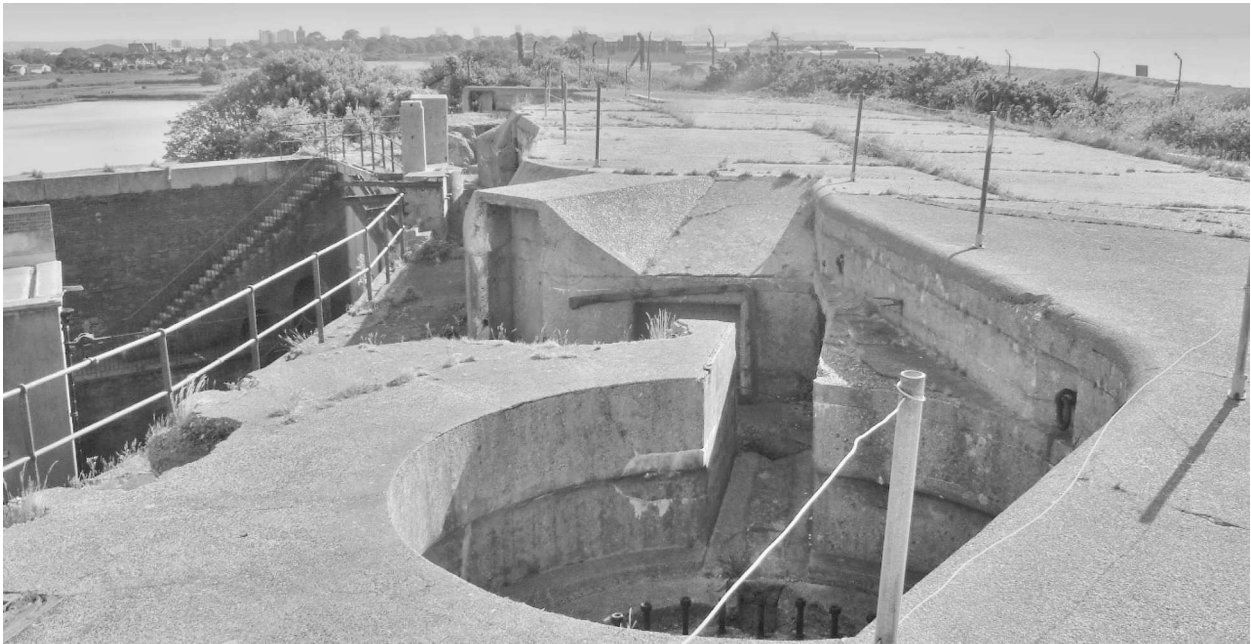
Section on line A - B

Right  
9.2-inch  
battery

Section on line A - B







**B1 Emplacement for 6 inch B.L. on east end of Gilkicker. The D.R.F. pedestal can be seen.**

**6 inch B.L. Mark 7**

Firing mechanism	Electric or percussion
Ammunition	Piercing 100 lb 11.5 pound cordite
Max range	12,000 yards
Muzzle velocity	2493 ft./sec
Total weight gun and mounting including breech assembly	16 ton 2 qtr Gun weight 7 ton 10cwt. 2qtr. 19lb.

**9.2 inch B.L. Mark 10**

Weight including breech assembly	28 tons
Firing mechanism	Electrical or percussion
Weight of mounting	129 ton 15cwt. including shield
Max range	29,200 yards
Muzzle velocity	2643 ft./sec
Projectile	Armour piercing 380lb.
Charge weight	120lb cordite MD
Cartridge	bag charge



**Emplacement for 9.2-inch B.L. on west end of Gilkicker**

### Owen Committee 1905

In 1905 the Owen Committee report on 'Armaments of Home Ports' declared many of the Portsmouth guns to be superfluous. Regarding the heavy armament mounted at Portsmouth the Committee stated that the guns mounted at Gilkicker and Browndown only covered an area accessible to vessels which had forced the outer defences. To do this they would certainly have been prepared to suffer damage, which should be sufficient to deter the attempt. The Committee therefore considered these works superfluous as under the (then) modern conditions laid down for their guidance. Regarding the medium armament the Committee stated that with regard to vessels entering with a view to blocking the entrance to Portsmouth harbour, they were of the opinion that they should be stopped before they reached the narrowest part of the harbour. the 6-inch guns at Fort Gilkicker were therefore considered superfluous and ineffective. The 9.2-inch and 6-inch guns were removed prior to April 1907.

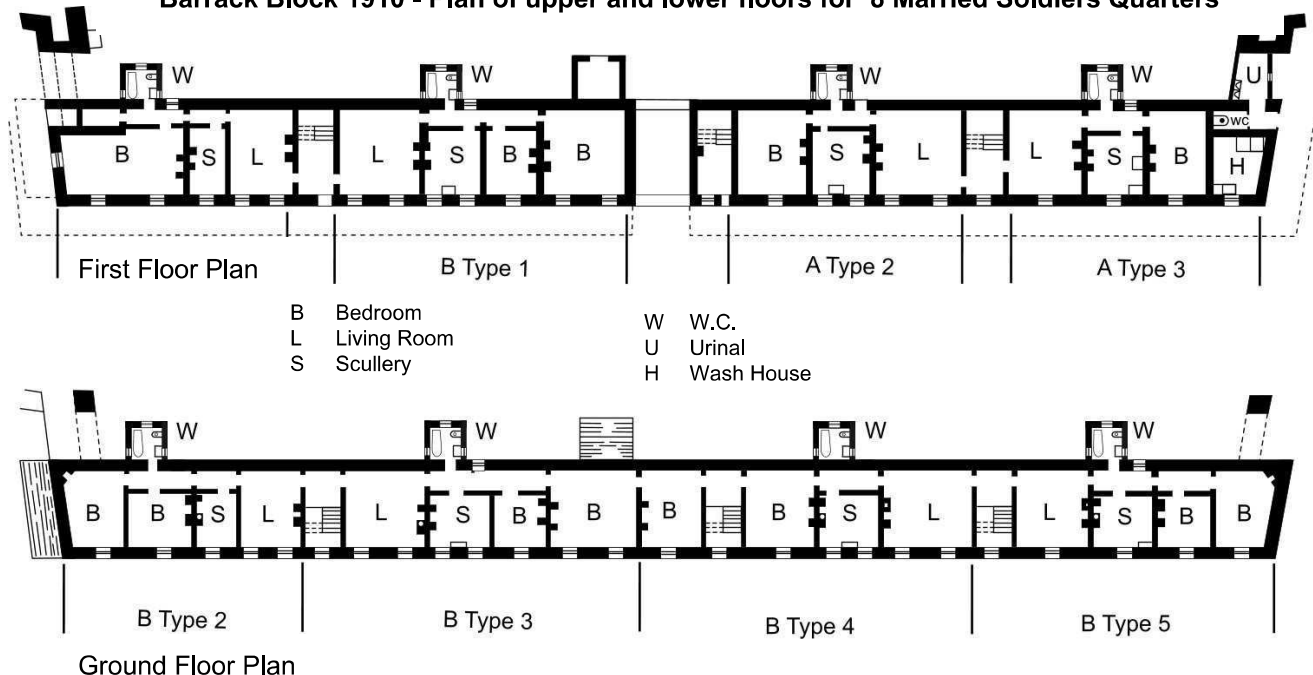
### The new barrack block

The rooms in the barrack block were altered when the new guns were installed. The artillery store at the east end became group store no.2 for the 6 inch guns while the artillery store at the west end became group store no.2 for the 9.2 inch guns. Access to these two

rooms was still from the outside landing connecting to the veranda. Fitted to the connecting wall above the landing were racks for spare gun tools. This wall was also loop-holed for rearward defence. The officers' and field officer's quarters became bedrooms. The officers servant's room became a kitchen. The rest of the rooms on the upper floor became stores. The lower floor retained its guard room and prisoners' room. No. 1 cartridge filling room became the lamp room, while no 2 cartridge room became a shifting lobby for the adjacent laboratory. The latrines, ablution room and cook house remained as before while the officer's quarters became married quarters with kitchen and scullery.

Sometime between 1908 and 1911 the outside of the barrack block was rendered. Plans showing the conversion of the barrack block to married quarters for eight soldiers are dated September 1910. It shows proposals to remove part of the walls connecting the barrack with the main body of the fort. The connecting walk-ways from the veranda, which gave access to the group stores at either end of the barrack on the upper floor, were removed and as these covered the passages to the magazines they were closed off. On inspection it appears that each end of the barrack was subsiding and possibly the rendering covers any cracks. This is a possible reason for blocking off the connecting tunnel from

**Barrack Block 1910 - Plan of upper and lower floors for 8 Married Soldiers Quarters**





**The west end gun casemates with 9.2inch B.L. emplacement above in 2007**

the magazines. At the right hand end of the barrack the connecting wall has two cement pads dated '27 7 11' acting as strain gauges across a vertical crack. The group stores were incorporated into the upstairs quarters and became bedrooms. Three of the quarters were 'A' type with one bedroom a scullery and living room whilst the other five were 'B' type each having two bedrooms a scullery and living room. Four W.C. blocks were added to the rear of the barrack each with a lower and upper room so that one served each married quarter.

### **Coast Defence**

The organisation of Coast Defence was altered on many occasions from 1856 onwards. Portsmouth was manned by the 15th. Brigade which became the 21st. Brigade which in turn became the 6th. Southern Garrison Brigade. In 1889 this became the Southern Garrison Division. Coast Artillery in the British Army found it difficult to produce enough men to man their guns in time of war and certainly the expense was prohibitive. As Gilkicker was essentially an auxiliary battery to Fort Monckton it was never considered necessary to quarter a permanent garrison there. At home there was never any intention to man all guns with trained artillerymen. They merely carried out the skilled maintenance of the guns and ammunition under the

direction of the Master Gunner. Between 1856 and 1914 the reinforcements required on the outbreak of war to complete the manning of the coast defences was to be found from the various Corps of Militia and Volunteer Artillery. Gilkicker was often used for Militia training and was occupied by three batteries from the Hampshire Artillery Militia during their 28 days embodiment in 1871. Again on June 19th. 1885 No.5 Battery moved into Fort Gilkicker and was inspected by the Officer Commanding Royal Artillery Gosport District on July 6th. No.6 Battery relieved them on August 21st. leaving one N.C.O. and six gunners at the fort when they left on September 6th. The Brigade was disembodied on September 30th. leaving the fort empty.

### **Manning the Fort**

Some regular Garrison Artillery batteries were stationed at Gilkicker between 1868 and 1890. The 5th Battery 7th. Brigade R.A. were there from January to September 1872. In 1872 there were five Garrison Brigades with a total of 35 batteries 'at home'. The 4th Battery, 7th Brigade moved from Fort Fareham to Fort Gilkicker on 12th August 1880. They left Gilkicker for Shoeburyness gun practice on 26th October 1881. They were replaced by 14th Battery 11th Brigade on 26th. October 1881 under command of Lieutenant-Colonel R.W. Phipps R.A..



**Interior of Fort Gilkicker from the West in 2007**

This battery became 2nd Battery South Division Royal Artillery after the 1882 reorganisation when territorialisation of the Garrison batteries took place. The battery left Gilkicker on 1st. April 1882 for Fort Grange. The 10th Battery Cinque Ports Division moved from Fort Grange to Gilkicker on 25th January 1887. They left for Lydd on 30th. June 1888.

The Portsmouth Fortress Defence Scheme of 1905 called for Fort Gilkicker and Stokes Bay to be manned during the precautionary period by a regular battalion of infantry, consisting of 3 officers and 100 other ranks. Fort Gilkicker itself was to be manned by 3 officers and 73 men of the Northumberland Royal Garrison Artillery Militia from Berwick-Upon-Tweed. They were to travel by rail to Gosport (Fort Brockhurst Halt) and to march from there to Gilkicker. They were to be supplemented by 17 men from the District Establishment (including an Assistant Artificer, a storeman and a lampman) and 1 Sergeant Artificer from the Army Ordnance Corps with 3 officers and 22 men of the 4th. Battalion Royal Munster Fusiliers based in Killeny, in all, a total of 6 officers and 113 men.

Manning the two Battery Commands were 1 officer and 2 men (trumpeters and orderlies) of the Northumberland Royal Garrison Artillery.

The Fire Command was situated at Alverbank. Each of the transmitting and receiving cells was manned by a detachment of 2 artillerymen. The Depression Range Finder Transmitters were to be manned by 2 men each with 10 men of the District Establishment to man the receiving dials. The two A guns were manned by 1 officer and 24 men with 2 men on the gun floor for shell supply and 2 men for cartridge supply. A further 4 men for each supply were located on the magazine floors. Two men were to be held in reserve. The B guns were to be manned by 1 officer and 20 men with 1 man on the gun floor for shell supply and 1 man for cartridge supply. A further 2 men for shell supply and 1 man for cartridge supply were located on the magazine floors with 2 men held in reserve. Nine machine gun detachments were to be quartered at Gilkicker. Fort Gilkicker was also to accommodate a surgeon from the 1st. Hants Royal Garrison Artillery Volunteers where the recreation room was to serve as a dressing station and inspection room. He also served Fort Monckton. In 1908 the Volunteers were abolished and the Territorial Force came into being. The Royal Garrison Artillery Coast Artillery Units of the Territorial Force were to man the coast defences rapidly and without delay in case of general mobilization.

**The early 1900s**

By 1904 the last of the smooth bore coast defence guns were relegated to saluting purposes and the remaining Rifled Muzzle Loading and early Rifled Breech Loading guns were declared obsolete. The Owen Committee report of 1905 stated that the heavy armament of Gilkicker, Stokes Bay and Browndown were only of use against ships that had forced the outer defences and such ships would be deterred by the inevitable damage they would incur. The 9.2 inch guns at Gilkicker and Browndown were therefore superfluous. The 6 inch guns were also superfluous and ineffective for much the same reason. The recommendation was that the guns be removed. A 1906 armament return shows that the 9.2-inch and 6 inch guns were still mounted but to be reduced. Corrections to August 1907 show them as dismounted. In 1908 the Volunteers were abolished and the Territorial Force came into being. The Royal Garrison Artillery Coast Artillery Units of the Territorial Force were to man the coast defences rapidly and without delay in case of general mobilization. The District Establishment maintained Gilkicker under 'care and maintenance' orders. When war broke out in 1914 the Militia and Volunteers were again allotted to the coast defences.

**Searchlights**

In 1892 Fort Monckton was the centre of Submarine Mining training. A series of buildings called the Submarine Mining Establishment was built to the west of Fort Gilkicker, east of Stokes Bay pier. Some time after this time the Royal Engineers built a 60cm narrow gauge railway, for steam and sail driven trains from the Establishment to Monckton. It ran eastwards from the Establishment and turned north crossing the access road to Gilkicker and on into Monckton Hutments north of Fort Monckton. The Tyne Electrical Engineers were originally Submarine Miners but after the Navy took over this responsibility in 1905 they became responsible for Coast Defence Lights. In 1903 they camped at Stokes Bay carrying out mining work at Spithead. They returned again in 1905 and 1906 using Fort Monckton. By this time they were operating a mobile 90cm. Coast Defence searchlight. They assumed the position of Second Senior Volunteer Electrical Engineer Unit and again held their camp at Stokes Bay in 1907. In 1912 Gosport was the War Station for two of their companies. Among the earliest extemporised Anti Aircraft lights manned by the Tyne Electrical Engineers were ones at Forts

Monckton, Gilkicker, Elson, Brockhurst, Grange, Lumps and Horse Sand.

**Living in the fort : 1906-1909**

In 1906, an 'Old Soldier', James McKnight of the Hampshire Regiment, returned from India and was quartered in Fort Gilkicker with his wife and daughters. He was still in uniform and was employed as a lamp man. The family occupied a living room and two bedrooms in the barrack block to the east of the entrance tunnel. Another family called Owen occupied the quarter next to them. One of the daughters, Mrs. Margaret Louise McKnight, born in October 1898, revisited the fort in October 1988 when she was ninety and was able to relate many incidents that occurred during her childhood stay at the fort. The loopholes to the rear of the barrack block were put to good use by her mother. She loved cooking and would place jellies in the loophole to cool. Mrs. McKnight saw the last soldiers leave the fort as the B.L. guns were removed. She remembers seeing a drunken soldier arrested, as he returned through the wicket gate, and placed in the guard room. The girls played in the gun casemates and Mrs. McKnight described what she called the 'raised stone beds' on which the soldiers slept in the east casemates. By her description these appear to be the beds for the Crossley generators which must therefore have been fitted prior to 1907. The girls attended a nearby garrison school. Mrs. McKnight remembered a rumour of the time that Gilkicker was sinking into the sea. The McKnights moved out of Gilkicker in 1909 leaving it empty.

**World War One**

During the First World War the Stokes Bay military railway was used to move stores and troops undergoing training to and from Monckton Hutments and Haslar Barracks from Stokes Bay pier and the Royal Engineers' School Electric Lighting. The whole of the area surrounding Fort Monckton served as an infantry training ground. Fort Monckton was used to house troops undergoing training, including for a period members of the Hampshire Regiment, and Fort Gilkicker probably served the same purpose. An armament return for 1917 shows that Gilkicker was briefly armed with a 3-inch 20cwt Quick Fire Anti-Aircraft gun. It was removed the following year. The 9.2 inch B.L position A2 has an octagonal concrete pedestal added to for this gun. Another report lists Gilkicker as having a 6pdr Hotchkiss AA gun in 1916. By 1920 a 'lean-to'



vehicle shed had been constructed on the parade. In 1921 a vast clearance plan removed all of the remaining obsolete coast defence guns in Britain. These were smooth bore, rifled muzzle loaders and some early marks of breech loaders. In 1926 it was decided that the coast defences of Great Britain should be manned by the Territorial Army only. This included the manning of searchlights by Fortress Royal Engineers of the T.A. Portsmouth coast defences were under the care of Hampshire Heavy Brigade R.A. (T.A.) On a date so far unconfirmed four Crossley generators were fitted into casemates number 19 and 20. Two of these supplied power for four electric searchlights mounted outside the fort, the cable runs and three of the concrete platforms still being visible. Another supplied the fort's requirements and the fourth was a spare. These lights were most likely manned by men from the Royal Engineers and could have been Defence Electric Lights, although they do not appear on any listings for this area.

### **The Second World War**

The fort itself seems to have been unmanned for the period up to the Second World War but the married quarters was occupied by families of the Royal Engineers stationed nearby at the R.E. school of electric lighting. Trinity House had a small observation post on Fort Gilkicker after 1939. This was manned twenty four hours a day. Sometime after 1939 the narrow gauge railway was removed and its metal presumably used for the war effort. Its route is still visible from the top of Fort Gilkicker. After Dunkirk it was decided to surround Great Britain with a ring of Emergency Coast Batteries. The first to be installed were manned by the Royal Navy and Royal Marines. The Coast Artillery soon replaced them. Many coast defences were supplemented with ex-naval guns as part of the anti-invasion defences. Searchlights were installed for night attacks. The Royal Engineers mounted a mobile searchlight on a purpose built platform on the top of Fort Gilkicker, west of gun position B1. At this time or shortly after Gilkicker was also reportedly equipped with a twin Vickers and possibly a 20 or 30 millimetre gun forward of the old 6-inch gun positions. In the early years of the war an eye witness reports seeing a triple generator, which he referred to as 'Pip, Squeak and Wilfred', mounted outside the fort. This provided power for a radar set. Pip provided auxiliary power, Squeak supplied the listening device whilst Wilfred supplied the network of wires which

were spread across the field to the rear of the fort. (This seems to be referring to a G.L. Mark II Radar with its transmitter, receiver and generator.)

A '*Report on Communications at Fort Gilkicker during June and July 1944*' shows that the fort was used as a communications centre for the D-Day preparations at Stokes Bay. On June 9th. over 1,000 signals were recorded for the day needing routing to over 1300 addresses. Later an average of 800 signals to almost 1,000 addresses were routed via Gilkicker. In June an exhausted carrier pigeon arrived at Gilkicker from France with a message from an Allied Paratroops Commander. The message was despatched at once with the pigeon being victualled until collected by the local army pigeon unit. The fort made 3,670 issues of confidential code and signals books to landing ships and craft in the Stokes Bay and Gosport areas in the first two months of the operation. Also operating from the fort was No. 10 WT, No.15 Radar and No. 17 WD mobile maintenance units. In the first two months six hundred routine maintenance visits were made to all types of ships and craft. Offices in the fort were occupied by the Principal Collecting Officer, Assistant Berthing Officer, Principal Engineering Officer and Confidential Book Officer.

### **The final years**

By 1945 most of the emergency batteries such as Gilkicker had lost their armament. An armament return of 1946 lists Gilkicker as having no armament. Although the married quarters were still occupied an eye witness reports that the fort was overgrown and partly derelict. After the war the fort was cleaned and cleared of rubbish by prisoners of war, mostly Italians. An Admiralty signalling tower had previously been sited opposite the west bastion of Fort Monckton. After the war this was moved to Gilkicker and a new observation tower was built on top of the fort overlooking the Solent. Lloyds used the tower for some time but it later came under the jurisdiction of the Portsmouth Harbour Port Authorities and is still in use today manned by lookouts from the Navy. From 1926 the regular army could no longer man the fixed defences. The Navy took over most of the defence works around Portsmouth. During the inter-war years Gilkicker became a prohibited area and was later used as a storage facility for Fort Blockhouse, the submarine training establishment. After the Second World War torpedoes, periscopes and other submarine spares

were stored in the casemates and magazines. This is confirmed by inventory lists, chalked or painted on some of the doors, which can still be read. Submarines mentioned include 'Tantalus' 'Tapir' 'Sidon' and the ill-fated 'Affray'. In 1956 it was announced that there was no longer a justification for retaining a coast artillery. This was the end of Fort Gilkicker's life as a coast defence battery. The Royal Engineer families moved out of the married quarters and the fort came under the care of Fort Brockhurst. The fort passed into the hands of the Department of the Environment and was used for storage. The barrack block was used as an office and for storage whilst one room at least was a plumbers workshop. A contractor working on the tower in the 1960s noted that the casemates were damp and derelict but that parts of the rope mantlets were still hanging. In November 1986 Hampshire County Council bought the fort, but not its surrounding earth bank, and began to take measures to ensure that the building did not deteriorate any further. In January 1987 work parties began to clear away years of accumulated rubbish from the gun positions, casemates and barrack block. Whilst clearing one of the lamp tunnels a lamp trolley complete with leather pulling strap was found. The trolley ran along the tunnel on a metal track. Both ends of the strap were attached to the underside of the trolley and ran over a wooden roller at each end of the tunnel. By pulling on the strap the trolley with the lamp on top could be pulled into the tunnel until the lamp rested against a stop across the inner glass partition, and shone into the magazine chamber. It could be pulled back out to adjust or change the lamp candle. The fort was used as a building materials store but was emptied when proposals to restore and convert the fort for modern housing were explored.

### The Fort in 2019

The fort is currently awaiting restoration and conversion to modern apartments. As a Grade II listed building its future was supposed to be secure, however in the Summer of 2016 it was extensively damaged by vandals who had free run of the site. In December 2016 it was announced that the fort had been sold to a new developer who intends to convert the fort as planned. In 2018 the development stalled due to the financial backer pulling out. The future of the fort is uncertain. It can be visited and viewed only from the outside and can be approached along the coast from Stokes Bay or by walking down the access road through Stokes Bay golf course.

### Glossary of Military Terms

**Barbette** A battery position where the protective parapet is low enough for the gun to fire over it without the need for embrasures.

**Battery** Any place where cannon or mortars are mounted.

**Battery Command** Point from which the guns of a battery were commanded and directed.

**Bombproof** A vaulted casemate or building covered with earth to withstand plunging shell fire.

**B.L. Breech-Loader** Any gun which could be loaded by opening part of the breech (or rear) of the barrel.

**Calibre** Diameter across the bore of the gun.

**Cartridge** An amount of gun powder made up into a charge contained in a silk bag.

**Care and Maintenance** Maintenance of coast guns after 1918 by civilians called District Gunners so they could be brought into immediate use at the outbreak of war.

**Casemate** A bombproof vault of brick or stone, usually covered with earth, which provided an emplacement for a gun or living quarters for soldiers.

**D.R.F.** Depression Range Finder

**Embrasure** Opening in a parapet or casemate front through which gun could be fired.

**Gorge** The rear face of a fortification.

**Loophole** An aperture in a wall through which a rifle could be fired.

**Laboratory** A room where gunpowder is mixed or made into charges before being stored in a magazine.

**Magazine** A place for the safe storage of gunpowder: Later divided into Cartridge Stores and Shell Stores.

**Mantlet** A protective curtain of woven rope hung inside an embrasure to protect the gun crew.

**Muzzle-Loader** Any gun loaded from its front (muzzle) end.

**Palliser Shell** A pointed shell cast so that its nose is extremely hard. Used to penetrate heavily armoured targets.

**P.F.** Position Finder

**Racer Track** Curved iron track set into the floor of a gun emplacement which enabled guns to be traversed more quickly.

**R.B.L.** Rifled Breech Loading gun

**Rifled Gun** A gun whose bore was cut along its axis with spiral grooves so as to spin an elongated shell and make its flight more accurate.

**R.M.L.** Rifled Muzzle Loading gun.

**Shifting Lobby** A room in which men working in a magazine change into and out of magazine working clothes.

**Terreplein** Broad level fighting platform on the rampart behind the parapet.

**Traverse** (1) To swivel a gun and its carriage, usually to point them at a target. (2) An earth bank positioned so as to protect troops from enfilade fire or to minimise the effect of a bursting shell.

**Traversing Platform** Wooden or metal platform which supported a gun and its carriage and which could be traversed on racer tracks. Sometimes called a Slide.



**View west across the rear of the Fort in 2007**  
with Smith & Fitter's Shop and Artillery Store

## Sources and Bibliography

### **The National Archives: Kew**

The report of the Commissioners appointed to consider the Defences of the United Kingdom, together with the minutes of evidence, appendices and correspondence relating to the site of an internal arsenal. 22.08.59 WO33-9 Report of the Committee appointed by H.R.H. The General Commanding in Chief to revise the confidential circulars of 1853 on the equipment of coast batteries March 1861. Portsmouth Fortress Defence Scheme 1905. WO33-383 A1053. Armament returns of 1869, 1872, 1876, 1886, 1898. Various plans of Fort Gilkicker in Works 43/250, 240 and 6320: WO78/2605: WO768/3662: WO78/4507.

### **British Library**

Handbooks for the 9inch RML 10inch R.M.L. 11 and 12inch RMLs : HMSO

### **National Monument Commission**

Various Plans of Fort Gilkicker WD 515,526,527,528,529

Plans of the Stokes Bay Defences 1892.

### **Archives of Priddy's Hard Ordnance Museum Gosport Hants.**

Treatise on Military Carriages H.M.S.O. 1902. Regulations for Magazines and the Preservation of Artillery Material. H.M.S.O. 1899.

### **Portsmouth City Library**

Journals of the Royal United Service Institute.- Coast Defences and the Application of iron to Fortifications, Jervois 1869. Working Guns and Heavy Projectiles, Cunningham, 1870. Report of the Committee Appointed to Enquire into the Construction, Condition and Cost of Fortifications Erected in 30.31 Victoria Statutes, Together with minutes of evidence. 1868. Appendix III - Memorandum on the Modifications rendered necessary in Batteries by recent Improvements in Artillery. Appendix V - Record of experiments conducted at Gilkicker Battery on 29th. December 1868; and at Shoburyness, on 11th. and 15th. February, 1869. Treatise on Service Ordnance 1904.

Artillery its Progress and Present Position in Two Parts/Lloyd and Hadcock 1893. Fortification-Its past Achievements Recent Development and future Progress by Sir George Sydenham Clarke 1907. A History Of Coast Artillery In The British Army, Maurice-Jones.

Various maps and plans.

The Illustrated London News 29 July 1871, 25th October 1879.

Extracts from The Military Chest "Nineteenth Century Defences of Portsmouth and The Solent Sea Forts", Major Harfield. Records of the Artillery Militia Regiments of the County of Southampton from A.D. 1853 to 1894, Col. J. Mouat F.Hunt, 1894

The Development of Iron Armour up to 1882 by Colonel T Inglis CB RE.

Coast defence and the Application of Iron to Fortification by Col. Jervois 1868





**Above Left :** Interior of 9.2inch B.L. Position Finding Cell in 2011



**Above Right:** Ammunition lift for 9.2-inch B.L. gun in Filled Shell Store for B2 in 2011

**Right:** 9.2inch B.L. emplacement in 2007 with 1906 modification for 3-inch Q.F. A.A. gun



**Below Left:** West casemates in 2007

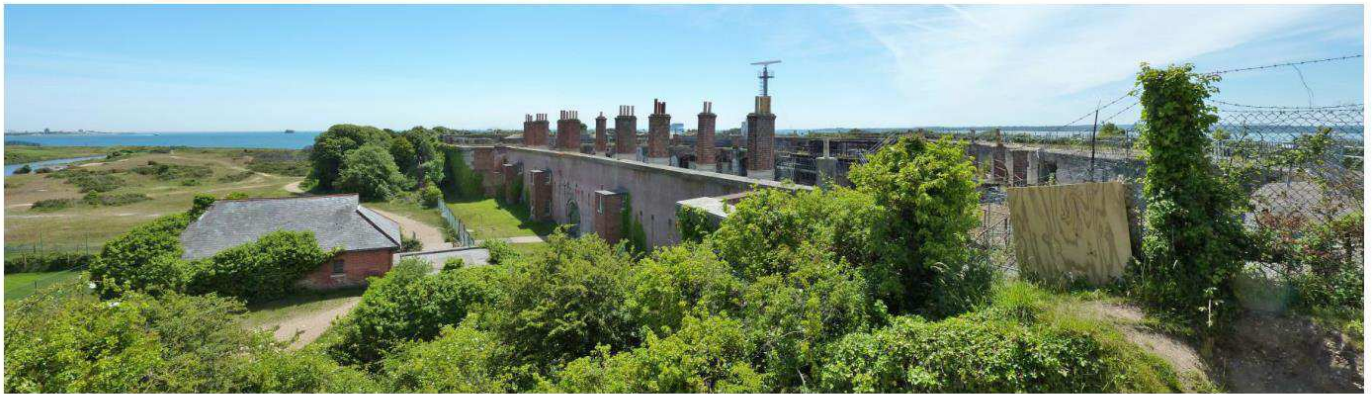
**Below Right:** Gun Casemate (Barrack Room)

**Bottom Left:** Rear of gun casemates with magazines beneath in 2011

**Bottom Right:** North East Gorge and Casemates







**View across the rear of the fort in 2010**



**View along the Verandah in 2011**



**Partially restored casemate in 2011**



**Gilkicker Lake with sluice and Fort Gilkicker from the East**



**Fort Gilkicker from the South**

